



PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

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As MARPOL Annex VI comes into force, *P&H* looks at emerging ship emission controls

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PUBLISHER

Dr. Satoshi Inoue

Secretary General, IAPH
info@iaphworldports.org

EDITOR

Nick Brown

nick.brown@lrfairplay.com
+44-(0)1-737-379-148

ASSISTANT EDITORS

Penny Allen

penny.allen@lrfairplay.com
+44-(0)1-737-379-158

Stephen Cousins

stephen.cousins@lrfairplay.com
+44-(0)1-737-379-156

SALES MANAGER

Adam Foster

adam.foster@lrfairplay.com
+44-(0)1-737-379-170

DESIGN & PRODUCTION

Phil McAllister

phil.mcallister@lrfairplay.com
+44-(0)1-737-379-165

Rob Wood

rob.wood@lrfairplay.com

Neal Thompson

neal.thompson@lrfairplay.com

Mark Ames

mark.ames@lrfairplay.com
+44-(0)1-737-379-170

MANAGING EDITOR

G. Paul Gunton

Lloyd's Register-Fairplay Ltd
paul.gunton@lrfairplay.com

EDITOR-IN-CHIEF

Tony Slinn

Lloyd's Register-Fairplay Ltd
tony.slinn@lrfairplay.com
+44-(0)1-737-379-159

ASSOCIATE EDITOR

Yuko Akamatsu

Assistant Under Secretary, IAPH
ph@iaphworldports.org

EDITORIAL & PRODUCTION

Lloyd's Register-Fairplay Ltd

Lombard House, 3 Princess Way
Redhill, Surrey RH1 1UP,
United Kingdom

Tel: +44-(0)1-737-379-000

Fax: +44-(0)1-737-379-001

Web: www.fairplay.co.uk

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7th Floor, South Tower,
New Pier Takeshiba

1-16-1 Kaigan, Minato-ku

Tokyo 105-0022, Japan

Tel: +81-3-5403-2770

Fax: +81-3-5403-7651

Email: ph@iaphworldports.org

Web: www.iaphworldports.org

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Spreading the word

Dear members, at the Africa/Europe regional meeting in London in early March, Prince Andrew, the Duke of York, addressed the assembled IAPH members and representatives of our many sister organizations who attended the IAPH 50th anniversary celebration at Somerset House.

His Royal Highness stressed the importance for the IAPH to make people more aware of how essential the world's ports are to their daily life and national economies. This struck a chord with me, because it's a truism that people often take the smooth movement of goods around the world completely for granted.

Our homes and workplaces are full of goods produced and imported from all over the rest of the globe. But the easy availability of these foreign goods would not be possible without the infrastructure to support the physical transport of this merchandise, from bananas and wine, to cars and raw materials like steel and crude oil.

For exactly this reason, the IAPH published a small booklet called *Ports in Your Life* as part of our 50th anniversary projects.

Through this and other means, we will continue to raise the profile of ports and promote people's awareness of the absolutely critical roles that the world's ports play in our everyday lives.

“ It's a truism that people often take the smooth movement of goods for granted ”

New regulations of the MARPOL Convention will enter into force this May, which sets limits on sulphur oxide and nitrogen oxide emissions from ship exhausts. Even so, as we all are well aware, carrying cargo by ship is already far more

environmentally friendly than any other mode of transportation.

For instance, carbon dioxide emissions from ships are 5 to 10 times lower than the equivalent amount transported by trucks. However, shipping still needs to operate with cleaner gas emissions to ensure the sustainable development of the entire global society.

As such, it is not only shipping, but also ports that have to work towards creating a greener environment by introducing measures to minimize gas emissions.

These environmental controls and initiatives are crucial to our business and the May issue of the rejuvenated *Ports and Harbors* magazine throws the spotlight onto this field.

In Shanghai, senior executives and delegates from all of the world's key ports will meet again at the 24th IAPH World Ports Conference in May. I'm confident this will provide a fantastic forum to inspire the exchange of views on all of the hot issues surrounding our industry, while also enjoying the rich culture, history and super-modern development that China offers.

I look forward to seeing you all in Shanghai. **PH**



Satoshi Inoue
Secretary General, IAPH

Port Updates

Lisbon, Portugal

Portugal has ratified the World Customs Organisation's (WCO) revised International Convention on the Simplification and Harmonisation of Customs Procedures, bringing it a step nearer to entering force as law. Kunio Mikuriya, Deputy Secretary General of the WCO, noted this while visiting Lisbon, and emphasised security as a driving force for customs modernisation.

Marseille, France

The Port of Marseille had distinctly mixed fortunes in 2004. While cargo throughput was down 1.6% to 94M tonnes and passenger throughput dropped by 4.7% to 1.86M people as a major cruise customer ceased trading, port services actually grew with nine new services and increases in rail and river traffic. Overall, this saw the port enjoy a 5% rise in turnover, up to €164.8M (US\$214M).

Klaipeda, Lithuania

Klaipeda State Seaport Authority's drive to improve its image paid dividends in March, when it was awarded ISO 9001:2000 and ISO 14001:1996 certification. These awards validate the port's work to improve environmental awareness and reduce its ecological impact.

New Orleans, USA

Low-hanging power lines that run over the Mississippi River in the entrance to New Orleans have been removed after years of complaint from cruise ship operators. The lines were becoming an obstacle to the growing cruise ships and, following the activation of high-voltage lines buried beneath the river last year, the old lines now served no purpose.

Durban, South Africa

Contracts have been awarded for the reconstruction of Island View berths 5 and 6 at the port of Durban in South Africa. The berths were withdrawn from service at the beginning of April and will be out of action for 12 to 15 months. The rebuild is expected to cost R154M (US\$25M).



Source: BARS

Ship security specialists sweep a vessel for pirates

Pirates return to Malacca Strait

The post-tsunami respite from piracy in the Malacca Strait has officially ended.

Since the end of February, the busy shipping lane has once again been reeling from an increasing number of violent attacks as the pirates make up for lost time.

Capt. Pottengal Mukkundan, director of the International Maritime Bureau's Piracy Reporting Centre asserted that "it is vital that action be taken by law enforcement agencies to identify the perpetrators of these attacks and have them punished under law."

Piracy in the strait was sharply curtailed by the tsunami that swept the Indian Ocean's littoral states in December and the subsequent deluge of military support vessels into the region.

This prompted apparently

premature hopes that the problem had been stamped out, but the scourge returned on 28 February, when a slow-moving tug pulling a coal barge was attacked off Penang, Malaysia.

In a worrying portent of what was to come, the captain and chief officer were taken captive by the boarders. Since then, hardly a week has passed without a vessel being attacked by heavily armed raiders and their main target appears to be kidnapping the crew for ransom.

Nevertheless, analysts have once again raised concerns about terrorists using the vessels as weapons. A tanker laden with inflammable fuel was attacked and boarded in March, prompting the Piracy Reporting Centre's Noel Choong to warn that "it is

frightening to contemplate what would have happened if the men were terrorists."

Foreign nationals have also been targeted, which immediately refocused the world's attention on the troubled strait. In particular, the kidnap of Japanese crew from a tug boat in March drew a swift response and offers of assistance to the local armed forces. Since then, Malaysia has resorted to placing armed security details on slow-moving barges and transports passing through its waters, to deter the pirates.

All three littoral states in the region have beefed up their security patrols, but there are repeated cries for increased cooperation between them to solve the problem.

Goa looks to boost cruising

Goa's Mormugao Port Trust (MgPT) is looking to invest Rs1.85Bn (US\$42M) to construct a new cruise and container terminal at Baina Bay.

MgPT's plans have been rumbling around for over a year, but are believed to be coming to a head. The Delhi-based Consulting Engineering Services has submitted a feasibility report on

the project and the operator will be competitively chosen on a build-operate-transfer basis.

Three firms — Afcons, Gammon India and Adani Group — have been short-listed for the project.

Already a popular tourist destination, MgPT hopes to attract international cruise liners to Goa. According to MgPT's chairman Shri C Venkatachalam, the plans

include construction of a dedicated berth with world-class reception standards.

The new plan has received government backing, as it is keen to develop India's coastline for the lucrative cruise industry. Goa wants to grab some of the cruise money that is currently going to Kochi, Mangalore and Mumbai on the west coast cruise circuit.

ISO goes Walvis watching

Namibia's main port of Walvis Bay recently received ISO14001 accreditation, which means that it has gained the distinction of becoming the only southern African port to have received ISO accreditation for both marine and terminal operations.

Several South African ports also carry the ISO14001 environmental responsibility certification, but only for port authority functions.

Walvis Bay is fast becoming a key player in southern Africa. On several occasions in recent years Walvis Bay has been judged the best port in Africa by the African

Competitiveness report.

Namibia's National Port Authority, Namport, has also had a degree of success positioning Walvis Bay as an alternative to South African ports and an Atlantic seaboard gateway to central southern Africa. In the last accounting year, the port handled 2.5M tonnes of cargo from approximately 1100 ship movements, of which about 60% were fishing vessels.

The container terminal has 380 ground slots with 210 reefer points for an annual capacity of 150 000 TEU. But it is nowhere

near achieving this yet. Salt exports (500,000t) - from refineries in Walvis Bay and up the coast at Swakopmund - and petroleum imports (800,000t) constitute the major bulk cargo handled.

The port currently employs a fleet of four tugs and two workboats and is connected by road and rail to the rest of Namibia and by modern highways to South Africa and central Africa - the Trans Kalahari to SA and Trans Caprivi into Zambia.

Newly constructed, these routes are being collectively marketed as the Walvis Bay Corridor.



Bush unveils energy plan

President George W Bush announced several major energy initiatives in late April, which could potentially impact strongly on the crude, product and gas trades into the USA.

Aiming to salve America's yawning energy and refinery dilemma, the president proposed using land from closed surplus military bases to build new refineries, as well as easing the

regulatory burdens to encourage new construction.

He further horrified environmentalists, by announcing plans to foster LNG imports, by backing the house of representatives' plan to give the federal government ultimate siting approval for new 'regasification' terminals, even in the face of opposition from the local state.

Almost as a sop to the green lobby, in the transportation sector Bush proposed expanding tax credits for hybrid cars to include clean diesel vehicles. However, in the domestic power sector, he will seek to ease the nuclear plant licensing process and create a new federal risk insurance plan to protect developers.

Finally, Bush once again voiced support for drilling in Alaska's Arctic National Wildlife Refuge.

PSA sweeps the port awards board

Singapore-based firm PSA International's growing success was recognised in late April, when the ports and terminals giant was voted the best global container terminal operator at the prestigious Asian Freight & Supply Chain Awards (AFSCA).

One of its subsidiaries, PSA Singapore Terminals, was also selected as the best container

terminal operator in Asia.

"I wish to express my appreciation and gratitude to our staff and unions in all the countries we operate, for their dedication and hard work which has contributed to this achievement," announced PSA International Group CEO, Eddie Teh upon receiving his company's award. CEO of PSA South East Asia

& Japan, Grace Fu, also expressed delight at receiving the Asia region award for the sixteenth time.

The annual AFSCAs are organized by Hong Kong-based trade journal Cargoneews to recognise and honour outstanding organisations in the field and are voted for by customers and industry professionals.

Port Updates

Oakland, USA

The Port of Oakland became the first major port in the USA to begin scanning containers for radioactive material on 27 April. All containers leaving the port will now have to pass through arch-like radiation detecting scanners. These US\$4M scanners are part of a wider push by the US Customs and Border Protection department to install the scanners nationwide. Homeland Security officials say that gateways through California will be fully covered by year end.

Cochin, India

Cochin Port Trust (CoPT) is looking for a partner to set up a cruise terminal with in Kochi. The Trust has floated a global tender looking for interest in the terminal as a public-private partnership. Built to the south of Vallarpadam Island, the terminal will be expected to handle batches of 2,500 disembarking passengers at a time. This terminal is expected to cost around Rs 460M (US\$11M).

Vancouver, Canada

The British Columbia environmental assessment office has recently accepted Vancouver Port Authority's Deltaport third berth project application for formal review. This constitutes the first of several bureaucratic environmental hoops that the authority has to jump through before approval can be secured for the expansion plans of the container handling facilities at Roberts Bank. The project is also subject to review under the Canadian environmental assessment act.

Busan, Korea

The Port of Busan has completed an upgrade programme for 46 of its cargo cranes, which have now been bolstered to withstand extreme weather conditions. Following the US\$1.7M refit, the cranes at Gamman, Shinsundae, Jasungda and Singamman terminals will now be able to withstand wind speeds of 75m/second, rather than the previous high of 50m/sec.

Port updates

Husum, Germany

The North Sea port of Husum has secured approval to operate as a support centre for offshore wind farms. The north German state of Schleswig-Holstein has approved outline expansion plans including building new vessel berths, paved areas for heavy cargo handling and approach roads. This approval comes with €13.2M (US\$17.6M) of funding from the state government and city council to greatly develop the fishing port.

Salalah, Oman

Salalah has received a Rial 28.9M (US\$73M) loan from the Arab Fund for Economic and Social Development to part-finance development and expansion of the port. The port operator, Salalah Port Services, is providing Rial 31M of its own money to fund the purchase of equipment and machinery. Total project costs are estimated to sit at around the Rial 106.25M mark.

Santos, Brazil

The Santos container terminal at Rio Cubatao is closing at the end of this month, throwing the plans and schedules of shipping lines operating in the already congested Brazilian port into chaos. Sources suggested that the main reason for the closure is that one of the three owners of the terminal - the steel company Cosipa - decided it needs the extra berth to deal with demand for its steel products.

Whangarei, New Zealand

Port company Northport has announced a NZ\$ 30M expansion of its facilities at Marsden Point near Whangarei. The project will see the construction of a third berth, which should be in operation by early 2007. The new facilities at Marsden Point, which currently handles mainly petrochemical cargoes and logs will replace the entire port of Whangarei as access to the old port is severely effected by silting.



Fremantle opens up to better access

Western Australia's only container port, Fremantle, has officially opened a new access road which provides more operational space for cargo handling, improved rail access to the inner harbour and better public access to the west end of Victoria Quay.

A dual gauge rail freight line included as part of the road project will ensure improved rail access to the inner harbour for regional cargo. This rail line ties in with a new rail loop and terminal - being built on the other side of the harbour - to ensure that there is a direct connection between regional centres and the port.

Western Australian Planning and Infrastructure Minister Alannah MacTiernan told *P&H* that these developments formed an integral part of creating a strategic transport network to improve the

rail share of freight transport.

The new access road frees up an additional two hectares of space for cargo handling at Fremantle, which is often called Australia's western gateway port.

More than A\$15Bn (US\$11.6Bn) in trade passes through Fremantle Port each year.

The port handles 91% of the State's total sea-borne imports and 31% of its sea-borne exports.

The new road is named Peter Hughes Drive, after a veteran port employee.

Peter Hughes joined the port as a temporary office junior in December 1952, but ended up as the port's longest serving member of staff when he retired in 2003.

During his time at the port he has seen the port evolve radically. This included the introduction of containerisation in 1964, the trend

towards larger ships, and the transfer of trades such as phosphate, petroleum and wheat to the outer harbour at Kwinana.

Hughes was awarded the rare accolade of a Public Service Medal in the Australia Day Honours List for his services to the port.

"I've seen huge changes in my time, the most obvious of which is that the ships have got much deeper, wider and longer," he said. "I saw the opening of Cockburn Sound and the transfer of trades such as phosphate, petroleum and wheat to the Outer Harbour.

"That made a big difference to the face of North Quay and to the lines of ships waiting in the 'Rottneest Queue,'" he added, "along with the move from casual to permanent employment for waterside workers in 1968."

Dar es Salaam branches out

A new service has been launched that could see Tanzania's main port of Dar es Salaam re-establish itself as the key shipping hub for the area.

MacAndrews' new Swahili Express Service is a fixed-day fortnightly service connecting East African ports with India, the Middle East and Pakistan. As of late March, it now also provides efficient onwards connections out of Dar es Salaam on to Moroni and Mutsamudu in the Comoros Islands.

"Much of the Comoros Islands trade is sourced through the Middle

East," stated Jim Robb, General Manager of Indian Trades at MacAndrews. "So our Swahili Express Service really comes into its own."

In another development in Tanzania, MacAndrews' local agent, Transocean Shipping has opened a new office in Dar es Salaam which strengthens the shipping line's presence in the region and helps it to extend the reach of the Swahili Express Service.

Traditionally an intra-European regional container shipping line,

MacAndrews began to expand from its core European services in 2003 when it started offering a service between Europe, the Middle East and India / Pakistan, buying slots from the EPIC Consortium. Last year, the company joined the Indamex Consortium to offer a service between the Indian sub-continent, Middle East and the US East Coast, where it operates the 3,600 TEU Indamex Colorado. The Swahili Express Service was launched in December 2004.

Kaliningrad seeks new oil outlet

A new large-capacity oil terminal may be built at Kaliningrad port to enable tankers to load up with Russian crude, regional sources have told *P&H*.

In response to concerns over safety, Kaliningrad officials have selected an area known as Yantarniy, apparently well clear of a shore zone currently claimed by the Russian Navy's Baltic Fleet Headquarters.

The new project, approved in principle by Kaliningrad's government, but not yet by the federal authorities, is being developed by Russneft, a newly established Russian oil production company.

The Baltic Oil Company (BOC)

operates a 20,000-barrels per day (bpd) oil export terminal at the East Baltiysk zone of Kaliningrad port. But it has been blocked from operating since last July, after a Russian government decree banned foreign citizens - and therefore a de facto ban on tankers - from berthing at the East Baltiysk base and loading oil for export.

BOC had reportedly been planning to expand to about 60,000 bpd in two years' time.

The Yantarniy site has a projected capacity of almost 100,000 bpd and as it is sited well away from the sensitive navy zone, could prove to be in much demand.

ISO panel criticised about supply chain rules

An International Standardisation Organisation (ISO) working group investigating methods to develop worldwide supply chain security standards has come in for some flak from senior industry officials.

World Shipping Council (WSC) President Chris Koch described the ISO processes as "goofy," in a letter penned to ISO regarding development of a supply chain security regime by technical committee (TC8).

By writing this, the WSC joined the Retail Industry Leaders Association, National Industrial Transportation League (RILA), European Shippers Council, the Baltic and International Maritime Council, and the European Community Shipowners' Association, who had all written complaints about the exclusion of shipping leaders and governments from the ISO's research process.

Koch noted how different this latest ISO process is from the ISO panel's TC104 group which is developing E-seal protocols.

"That group has been transparent and inclusive," Koch said, adding that he expects E-

Seal standards to have been formulated by the end of this year.

But that didn't stop him from adding that TC8 will still need to accept input from experts representing every stakeholder across the supply chain, before making final decisions that will affect the whole.

In response, ISO Deputy Secretary Kevin McKinley asserted that "TC8 is able to draw on expertise from a number of ISO committees and external organisations in order to address security issues.

"Any interested party," he continued, "wishing to participate in this work may do so via international and regional frameworks. Both WSC and RILA have nominated expert participants."

"We appreciate the concerns about the ambitious timeframe that has been established," ISO concluded, "but we need to note that the intention at this stage is not to develop full international standards, but rather a pre-standard, publicly available work that can be tested in the market place."



the PORTfolio

Facilities owned and operated by the Port of Houston Authority handle a variety of shipments, including general cargo and containers; grain and other dry bulk materials; and project and heavy lift cargo. Every year, more than 130 million tons of cargo valued at \$44.5 billion moves through the Port. With plans for additional facility improvements, the Port Authority will soon expand its capabilities to drive economic growth throughout the region.



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Port updates

Mumbai, India

A new cruise route is to begin operating out of Mumbai from the beginning of October. Star Cruises has announced the launch of cruise packages on the SuperStar Libra from Mumbai to Lakshadweep and Goa. Star Cruises officials said the initial response has been encouraging and expects the route to break-even quickly.

Constantza, Romania

A new oil pipeline linking the port of Constantza with Trieste could net Romania between US\$600M and US\$1Bn in transit taxes if it is given the go-ahead, according to minister for Economy and Commerce Eugen, Tapu. Production is due to begin on the pipeline in 2007 at the earliest, but is dependant on an agreement being signed between the two countries. The 1,360km pipeline would carry 112M tonnes of oil a year and link with the Trans Alp Pipeline.

Singapore

The Maritime Port Authority of Singapore has announced it is introducing a raft of new incentives to encourage double-hulled tankers to operate out of the port. These new measures include a port dues waiver for new double-hulled bunker tankers licensed between 15 March 2005 and 31 March 2008 for a period of five years. MPA will also extend the pilotage exemption for bunker tankers from the current 5,000 GT to 7,000GT.

Kumport, Turkey

The Istanbul-based Kumport's year-end figures for 2004 show a healthy growth curve at the port. It handled 660,120 tonnes of general cargo and 483,831 TEU in 2004-05. This represents a substantial 10% growth on the previous year for container-handling at the port. Even more impressively though, the figures show a 60% increase on general cargo over the same period in the previous year.



Karachi streamlines logistics

Karachi International Container Terminal (KICT) has selected a new software system that will speed-up and smooth-out container handling logistics.

More than 80% of Pakistan's international trade passes through Karachi, so it is imperative that the port is as smooth and efficient as possible.

The terminal currently uses a range of non-standardised EDI messaging and EDIFACT data formats that make communicating between the relevant organisations somewhat complicated. The new system will standardise all communications on a single baseline format with GoXML software.

This software install was ordered from Canadian-based IT company Xenos and KICT constitutes the pilot site of a wider push to improve cargo

transit across the country, known as the Customs Administration Reform (CARE) project. This is supported by the International Monetary Fund and the World Bank and run in-country by the Pakistani Customs and Central Board of Revenue.

Though the port will continue to use existing software, XML's inherently open structure will enable the terminal's operations to be radically streamlined.

According to KICT, it will be triggered on a planned, scheduled or event basis, such as time-of-day, vessel berthing, ETA of a vessel or entry of a particular container in the yard. Once triggered it will translate existing EDI messages into the CARE XML format for distribution to both internal and external customers.

Implementation of the new system began in late March.

Canadian government helps out with port security

Ports and marine terminals in Canada have begun to receive the first round of C\$23.6M (US\$18.9M) in funding from the government, to pay for security improvements needed to meet ISPS standards.

Transport minister Jean Lapierre has promised that another round of C\$52 million will be awarded later this year.

The money is being split amongst the ports and terminals, according to need and size, so Vancouver received the lion's share of C\$8 million and Montreal accounted for C\$3 million. Other main benefactors include the Port of Quebec City (C\$879,309), the St. Lawrence Seaway (C\$612,000) and the Port of Toronto (\$607,000). Another 64 ports and terminals also received funding.

Vancouver spokeswoman Anne McMullin said that her port would be using its payment to offset costs incurred in increasing fencing and access control measures. She noted that 10 terminals within the port received a total of just over C\$3 million.

Montreal spokesman Michel Tourgeon said his port had also invested in fencing and more cameras. The port has developed a proximity card for its workers but needs to acquire more readers for them, he continued. He said marine security improvements "are a work in progress" because of the scope of the task.

In addition to the security funding, the Canadian government is soon expected to announce details of an C\$80M programme for beefing up policing at the Canadian ports.

It is expected that the Royal Canadian Mounted Police will take on a greater port security role, especially in on-the-water security patrols.

Please visit our booth #3003 at IAPH 2005!



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ISPS code's crime-busting side-effects

The recent introduction of wide-ranging security legislation and anti-terrorism measures has also resulted in a welcome reduction in cargo crime.

According to transport industry mutual insurers the TT Club, there was a marked reduction in the number of theft claims being reported directly after the introduction of the ISPS code.

Not only that, the TT Club also claims that the industry has noticed reduced delays, faster cargo-processing time, increased safety and the potential to reduce decreased insurance costs.

This has led TT Club spokesman Andrew Kemp to suggest that far from complaining about the cost of participation in the various security programmes – the Container Security Initiative and Customs Trade Partnership Against Terrorism as well as ISPS – shippers and port facilities should be celebrating them.

These mandatory improvements in security have

filled in gaps that Kemp believes were tolerated before because the cost of the thefts was marginally less than the perceived costs of increasing security and operational efficiency. "In other words," he noted, "there was a point – lying somewhere between the theft of a box of paper clips and the theft of a container – where the terminal operator would begin to get really concerned."

Kemp went on to applaud the insurance industry-to-government initiatives such as the US Terrorism Risk Insurance Act that forces the federal government to shoulder some of terrorism loss with the insurance company. However, he warned that the situation was patchy elsewhere and insurance coverage was not provided by all insurers worldwide. "Some insurers of terminal operators in the Asia region are willing to provide terrorism cover," he explained, "but others are not."

Klaipėda readies for larger vessels

The first stage of channel-dredging work to open up the Lithuanian port of Klaipėda has been completed.

Before this work, Klaipėda could accept vessels with a maximum draught of no more than 10.5m all the way up to quay 79, but only up to quay 10 if they were between that and 12.5m. This first round of dredging has increased this draft down to 13m all the way from quay 10 to quay 79, representing roughly half of the port's waters.

In total, 675,996m³ of sediment was dug out of the port. This included 27 boulders with a diameter greater than 1.5m.

Stage one of the dredging

project was carried out by local company Klaipėdos Hidrotechnika and the Poland-based PRCIP Dragmor, with overall project management run by German engineering firm, BLG Consult.

The second stage of dredging will begin later this year and will ensure that the entire entrance channel all the way up to quay 115 will have this new uniform depth of 13m.

This work has been largely funded by the International Bank for Reconstruction, which has stumped up 67% of the total, with the rest made up by Klaipėda Port Authority. Total costs for all of this major work are estimated at over €2,352,565.



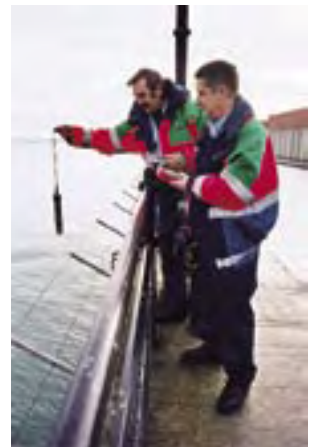
US port security patrol. Would you steal from these guys?

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More controversy hits Melbourne dredging

Major dredging operations planned for the port of Melbourne will prove merely an "interim measure" and further deepening will be required in 15 years, according to the head of the Australian Peak Shippers Association, Frank Beaufort.

The proposal is to deepen sections of the channels to provide access for 14m-draught vessels, at all tide rates within Port Phillip Bay and the Yarra River, and a 95% probability of transiting the entrance to the bay when the rise of the tide is 1.5m.

Beaufort further contested that the figure of 30% of container vessels not being able to enter Melbourne fully laden at present was about double the real figure.

He still believes that the project will go ahead, given the power of the shipping and port lobbies.

Dredging of the Melbourne channel is set to cost more than A\$500M (US\$388M). The Port of Melbourne asserts that the dredged channel will be a permanent solution.

A number of businesses, major companies, shipping interests and the port itself are in favour of the plan, but several strong local environmental groups oppose it.

In late March a group of conservation groups and others handed in a petition against the deepening signed by an estimated 20,000 people. It is currently awaiting final state government approval.

New multimodal insurance team

Financial giant Fortis Corporate Insurance has agreed to become the total risk carrier for multimodal liability insurance policies written out by Raets Insurance Group's P&I club.


This new multimodal liability product will be written under the RaetsMultiModal name when the deal enters into force from 1 July 2005.

According to Raets Insurance Group, the product will appeal to the full range of maritime customers, including freight forwarders, marine terminal operators, port authorities, port agents, NVOCC operators, shipping agents and chartering brokers. It will initially provide Raets with an income of US\$2M,

but with this range of customers, the company expects the income to grow to around US\$15M by 2010.


While this is practically peanuts to the Fortis group – which has a staggering total market capitalisation of €45Bn – the company sees it as an ideal way to consolidate on its maritime interests.

Martin Lanting, managing director of Raets P&I, believes that this synergy will help Raets grow, with the potential for further partnerships with Fortis. Nevertheless "it is important that we stick to our principles," he told *P&H*, "and remain a niche player specialist in the 'fixed premium' P&I market."



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Bought and Sold

Felixstowe, UK

As part of its push to expand capacity following last year's Europe-wide congestion, the Port of Felixstowe has placed an order for 12 new Rubber-Tyred Gantry Cranes (RTGCs) from Zhenhua Port Machinery Company in Shanghai. Due for delivery in May 2006, this latest contract is in addition to an order placed for nine RTGCs and one Ship-to-Shore Gantry crane in 2004.

Malaysian cut-up

Shipbuilder Van Oord has officially handed over the US\$38M cutter section dredger Inai Dahlia to Malaysian owners Inai Kiara. With a total installed diesel power of 8,277kw, the vessel is equipped with a high-pressure dredge pump and an electrically-powered cutter head. In 2004, Inai Kiara won a contract to manage and maintain all of Malaysia's ports.

Oz goes Post-Panamax

Australia's very first three Post-Panamax-capable quay cranes arrived at the Port of Brisbane in late February, on board the heavy-lift ship Zhenhua 5. Built by Zhenhua Port Machinery in China, each crane cost A\$10M (US\$7.8M). With a height of 35.5m above ships' decks and a reach of 42m, the cranes will be a real boost to the port's handling capacity. P&O has another 12 similar cranes on order for its four major container terminals in Australia and expects them to arrive over the next five years.

Lerwick pushes tug

Lerwick Port Authority has placed an order for a new replacement pilotboat tug that has been designed to help handle the larger vessels that are increasingly using the Shetland port. A contract, valued at approximately £1.8 million (US\$3.4M), was signed with the Vestvaertstet shipyard, of Hvide Sande, Denmark in March, ahead of a delivery date scheduled for April 2006. The new boat will have a bollard pull of 24 tonnes, a 20% increase over the tug it is to replace.



Congestion at LA and Long Beach encouraged developers to look South

Rumour mill gets the Baja bug

Rumours of a huge development have surrounded the tiny town of Punta Colonet in the Mexican state of Baja California for months, but 'incomunicado' best describes those said to be at the core of a much-discussed port project.

Last summer's overcrowding and long delays at the southern California ports of Los Angeles and Long Beach prompted many to look for new solutions.

One suggestion was to build a container port about 300km south on undeveloped land surrounding Punta Colonet's harbour. Proponents pronounced the spot perfect and the terrain ideal for the necessary road and rail links to the infrastructure across the US border.

In December, Mexican reporters said the government was discussing building the port with Hutchison Port Holdings. The Hong Kong-based

operator already manages a small port in nearby Ensenada, so talk was rampant from everyone – except Hutchison.

Then, in late March, press reports surfaced that a US\$1Bn port complex would be built at the Punta Colonet site, but that Oakland-based Marine Terminals (MTC) would be the builder – in a joint-venture with four Asia-based shipping lines.

Within hours, a spokesman for Evergreen – one of the lines named in the story – denied any involvement. The line's ties to MTC were limited to a partnership in LA-based operations, it added.

MTC also took exception, saying the article contained inaccuracies. The family-owned stevedoring company said it was "looking at a number of alternatives, including development of alternative gateways in Mexico", but quickly added that no

conclusions have been reached.

Doug Tilden, president of MTC, said it is committed to existing core operations and infrastructure upgrades on the western seaboard of the USA. Mexican officials quoted in an LA Times report also became unavailable for comment.

One senior Mexican official told *P&H* sister magazine Fairplay, that he had no knowledge of the project. Details described in all the reports were quite similar. A new city would be built to support the project. It would all cost about US\$1Bn and be completed about 2012.

And a key would be a rail link to the Union Pacific in Yuma, Arizona. Railway sources – while not dismissing or acknowledging the deal did not acknowledge a deal – did tell Fairplay that comment would be premature.

Kolkata floats deepening proposal

India's second largest port has indicated its intentions to increase the draught of the Hoogly river, and Kolkata Port Trust has put a capital dredging programme to this effect out to tender.

The major programme is estimated to be worth Rs3.85Bn (US\$88M) to the successful bidder.

Port chairman AK Chanda said the tender is being floated in line with a scheme prepared by the

National Institute of Ocean Technology (NIOT). "We are preparing for the tender process while awaiting approval of the Public Investment Board (PIB) so that we can start the bidding process as soon as we get the nod," he said.

The port authorities scrapped an earlier scheme prepared by a German consultant because of changes to the river's morphology.

The authority subsequently engaged NIOT to come up with a modified scheme and submitted its report to the shipping ministry in December, 2004.

In addition, the port has recently received a preliminary report from the Japanese International Cooperation Agency, which has been studying setting up a fully-fledged port facility at Sagar near the Sandheads.

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Making hauliers think water

P&H's Penny Allen investigates a resurgence of interest in trying to get transport off the roads and rail, and back onto water

Over 16 billion tonnes of freight is moved within Europe each year - around 71% of this is moved via road, 6% by rail, 18% by shortsea shipping (SSS) and 5% by inland waterway.

Looking at such figures, it is little wonder that Europe's roads are so heavily congested. Yet it doesn't need to be like this and there is a growing political and industrial movement in the UK to push transport away from the country's crumbling road and rail infrastructure and back onto the water.

Bo Lerenius, CEO of Associated British Ports and president of the Sea and Water lobby group, contends that the UK's road network is the busiest in Europe, with one in nine freight deliveries arriving late at their destinations. He sees SSS as a way of maximising the use of land that we have in the UK, as water transport makes use of 'natural tracks' such as waterways, estuaries, coastline and adjacent seas.

Former UK minister for shipping, current president

of the British International Freight Association and consultant to US logistics group Transsystems Advisors, Lord Caithness strongly agrees. He told a recent Sea and Water conference, that "ports are critical elements in the further development of shortsea shipping," encouraging its delegates to 'think water' and get freight off Europe's roads and onto shortsea, coastal and inland shipping.

Lord Caithness asserted that there are many benefits to SSS in the UK, and noted that the method has recently undergone something of a revival, as the economics of transport have begun to change.

"The main contributing factors towards this," Lord Caithness continued, "have been the need to mitigate increasing road congestion and the high operating costs of alternative methods of transport, as well as official encouragement from the European Commission in both financial and practical terms."

In this ticky transport environment, Lord Caithness argued that SSS is an ideal transport alternative as "the

use of the sea is virtually free, already exists and does not require ongoing maintenance. In addition, it is not affected by traffic congestion in the same way roads are and as such sea transport could be significantly increased by adding more, larger or faster ships."

However he was realistic about the vital role of ports in SSS and raised concerns of their capability to cope with even current demand levels. Nevertheless, he pointed out that whilst there are more than 1,000 ports situated near industrial and population centres within the enlarged EU – the largest concentration of ports in the world – the seas themselves are not congested.

"It is a different story with ports," he explained, "and we face major problems with our existing port infrastructure – not only landside, but in giving access to new and larger vessels."

Whilst he believes this will be to the disadvantage of transport in general, he also acknowledged that it will be difficult to implement changes to port infrastructure. "The environmental impact will be a severe constraint to any development, as we have witnessed [with the abortive harbour expansion plan] at Dibden Bay."

Lerenius suggests that the way forward is to interlink different inter-modal bases, "access points to waterways must be maintained, as should the UK's network itself."

Like Lord Caithness, he also emphasised the importance of ports in the chain. "Ports must be allowed to expand to include waterside storage and distribution facilities," he added, "sites where water and road come naturally together should be identified and protected."

Forced to sea

However, convincing companies to utilise SSS is easier said than done. According to Jacques Dewilde, managing director of Ferryways, an influx of eastern European haulage has resulted in a huge amount of 'wasted kilometres' being driven and he has called for a tax to be levied on haulage that does not arrive at the port closest to its destination.

"Checks could be made at Dover," he suggested. "If the truck had a London destination, then no charge. But if the destination was Immingham, then a £300 fine could be levied because it should have arrived in that port."

Without these incentives, the industry will face other problems. Dewilde explained that eastern European haulage companies pay their drivers approximately £1 per hour, which could put western European operators in jeopardy. He is also concerned that the drivers "are hardly controlled by the Working Time Directive and they get away with it. With two drivers on £1 per hour, they can deliver faster than we ever could in our haulage industry."

In addition to ecological connotations and the EU's congested motorways, Dewilde asserted that Eastern European hauliers are undermining the attractiveness of the unaccompanied crossings that his company has successfully pioneered. These crossings greatly improve efficiency by simply transporting the truck trailers in the ferry, which leaves the truck 'horse' free to pick up another inbound trailer at both destinations.

Highlighting a semantic, but salient difference, Dewilde further noted that the government 'invests' in roads and railways but merely 'subsidises' the maritime industry.

"This needs customer and government support," he added, "not in terms of money but in terms that this is something they could steer to the benefit of the whole population."

Going inland

It seems that countries beyond the EU have also been 'thinking water'. The ports of Victoria and Houston in the USA, for example, have recently agreed to work together to try and increase the use of barges for transporting cargo containers between ports along the Texas Gulf Coast.

There is great confidence between these ports that barges could provide a cost-effective alternative to trucks, whilst also reducing air pollution and congestion on Texan highways. This is particularly important as projections expect commercial truck traffic on Texas highways to increase by approximately 55% by 2020, according to recent transportation studies

Planners hope that this barge system will reduce the traffic on Highway 59, a roadway that runs between Houston and Victoria and serves as the main corridor to Mexico, Houston port's leading trade partner. A study reveals that if the project succeeds, it could reduce current air emissions by as much as one ton of nitrogen oxides for each barge transporting containers between the two ports. **PH**

The Nordic Terminal at the Port of Immingham. Jaques Dewilde, believes that trucks should use ports closest to their final destination (Credit: Geoff Byman)

The Port of Houston, pictured here, is to work with the Port of Victoria to lure traffic off the already busy Highway 59 (Credit: USCG)



Managing nature's barriers

P&H explores the technology enabling New Zealand's partially sandbarred Westport harbour to continue operations safely and smoothly

Natural harbour entrances are as much constrained by nature as formed by it, and New Zealand's Westport is no exception. Though the harbour is protected in a naturally sheltered estuary at the mouth of the Buller river, there is a substantial sandbar formed by littoral sand drift across its entrance.

According to Capt David Barnes, port manager at Westport, "we live on a meeting of tectonic plates where the upthrust causes our mountains to grow at 3mm a year, so I am informed. Incoming weather from the Tasman Sea meets these mountains and results in a pretty good rainfall, supplying fast rivers that sweep glacial debris into the sea, where the littoral drift brings it up past Westport. The finer particles then settle out in the calm of Buller Bay, forming our bar."

This sandbar presents a real obstacle and, in bad weather or when the river is in flood, is considered impassable. It is also constantly shifting shape and depth as silt piles up or is washed away.

Capt Barnes told *P&H* that the common perception that the river causes the bar is false. In reality, the river flow is used to help manage the bar. "Sir John Coode, the British engineer who designed the harbour, built training walls and breakwaters to straighten the river and utilise its force to scour the berths and the bar," he said.

As with other barports, it is impractical to fully dredge the port entrance, so Westport has accepted the limitations and settled on a policy of targeted dredging and avoidance to keep the port open to trade. To ensure the latter, the port has installed an innovative system to constantly plot the bar's position and distribute this data to ships transiting the bar.

Capt Barnes explained that the challenge of a dynamic sandbar with shifting sands precludes the using buoys. Instead, the port uses a hydrographic survey package linked to a differential GPS (DGPS) system to create an extremely accurate and regularly updated plan of the bar – sometimes surveyed twice a day, but at a minimum twice a week.

The harbour's hydrographic pilot vessel is outfitted with a sounder, DGPS, tide receiver, Trimble survey software, TSS heave compensator and an A2 mechanical plotter.

This plan of the bar is then uploaded to the port's dredger, *Kawatiri*, which is sent out to target-dredge trouble-spots in a real-time plotting mode, using the plotter pen – representing the draghead – to highlight the contour to be removed.

Additionally, the bar plan is rapidly formatted as an electronic chart overlay and emailed out to vessels using Westport harbour. "We believe we are the first port in the world," Capt Barnes continued, "to be able to sound, create and then email the chart to a ship all in the space of one and a half hours 'from go to whoa.'"

He added that the bar plan is a true vector chart, on which the navigator can choose the level of information they require. Equally impressively, the charts can be emailed over a mobile phone data connection to vessels at sea.

This system was developed by HSA Systems based in Wellington and works on a normal PC, running off-the-shelf Endeavour Navigator software, which enables up-to-date survey data to be overlaid on existing raster or vector charts.

The charts of the sandbar are produced in a structured drawing exchange (DXF) format, which is subsequently translated into HSA's proprietary NDX format by the receiving ship and loaded into the Endeavour navigation system.

Directly linked to the harbour's DGPS signals and using tide height data sent out every two minutes, the navigator can view the vessel's position, true course and speed vector in real-time, and plot the safest route over the bar for the current conditions and vessel draft.

The application of simple and relatively low cost information technology has enabled Westport to smoothly continue operations in this otherwise awkward environment.

In fact, the solution is largely software-based and the majority of the hardware and operations are either off-the-shelf or legacy equipment already in use at the port – for example the DGPS and digital bar surveys were already a feature at Westport.

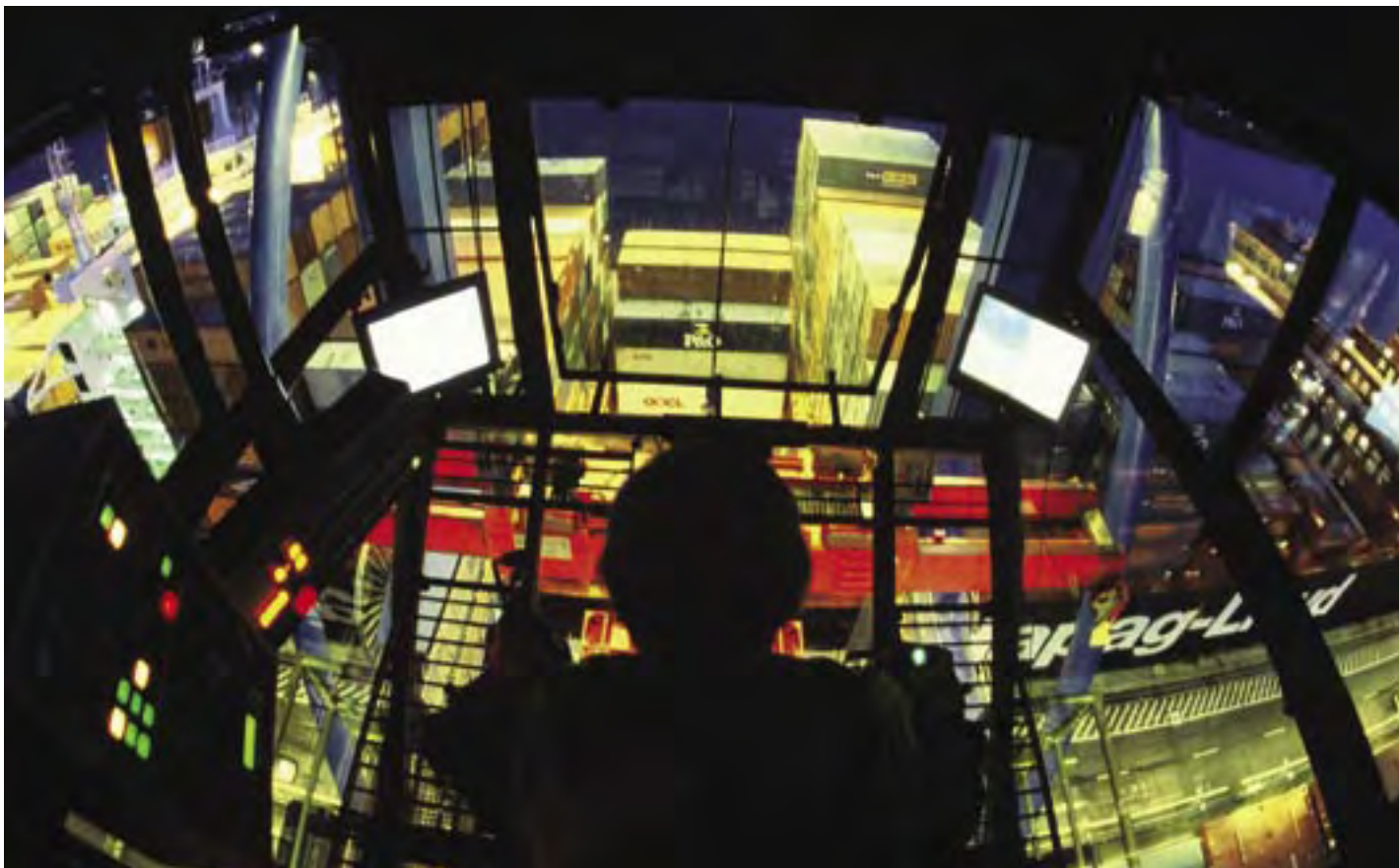
Despite this sandbar, 500,000t – around 50% of New Zealand's total – of cement are shipped out across the bar in reasonable sized ships every year. The largest vessel so far handled is a 12,000t barge, *Union Bulk 1* loaded out to 12,332t. The ship's resulting draft of 6.2m was near the port's limits, but using the hydrographic survey package, the port was able to make the most of its available draft clearance.

Barnes explained that with appropriate operational parameters, the electronic survey and charting system allows much finer tolerances to be undertaken. "A ship can be positioned for approach in much reduced visibility than would otherwise be the case," Capt Barnes asserted. "It also adds to the safety factor where the main leads may be obscured by rain showers or a physical aspect of the ship."

Nevertheless, crossing the bar remains potentially dangerous and Capt Barnes sets out that there are many bar harbours around the world and all are dangerous when rough. Many lives have been – and will continue to be – lost when small boats try to cross the bar in such conditions.

He insists that seafarers of all persuasions have to understand that despite the temptation to head for port in a storm, "there is no man with the experience and no boat that can cross a bar when it is rough, so don't try it. If it's rough at sea, just imagine what the bar is going to be like. Get sea room and batten down or run elsewhere for safety because you will not find it trying to cross the bar."

Happily though, there is a general recognition of this fact. Safety is taken very seriously by crews in the area and Westport's fast bar charting and dissemination has won widespread approval. "There is usually," Capt Barnes concluded, "a dogmatic attitude at sea of, 'I don't need new-fangled things' but it is very heartening to have so many bridge teams embracing Westport's new technology." *R&H*



All bunged up

Dean Davison tells *P&H* there is no magic pill to solve growing problems of port congestion

The world's container port industry has caught a cold over the last couple of years and container handling has begun to suffer from increasing levels of congestion.

Global container trade has increased every year since deep-sea routes took off in the late 1960s. In fact, global container port handling has grown at an average annual rate of 9.5% since 1980, a growth rate that has continually exceeded underlying trade growth by several percentage points.

Additionally, China's accession to the WTO at the beginning of 2002 and the resulting shift in manufacturing patterns has provided a further boost to world container trade, which has surged over the last couple of years.

This growth is a double-edged blessing, because growth in world container handling activity means high vessel utilisation rates for ocean carriers, but puts existing port facilities under a considerable strain.

Arguably, 2004 was the worst year on record for congestion at the world's container ports and

concerns are growing that the 2005 peak season could be even more difficult.

Congestion is nothing new, but what really set 2004's congestion apart from that of previous years was that ports in developed economies experienced the worst delays. Multi-million TEU container ports, such as Antwerp, Los Angeles, Long Beach, Montreal, Rotterdam, Singapore, Southampton and Vancouver all experienced periods of extreme difficulty in handling cargo. Worse, this situation arose despite them long being lauded for their ongoing investment in developing modern cargo handling facilities.

Causes for complaint

There were a number of underlying reasons for this situation, but in general, congestion was a result of port authorities and terminal operating companies failing to forecast and plan for the huge demand that would be placed on their infrastructure and resources. In particular, the growth in Chinese exports was severely underestimated and this is why those leading ports

Serious congestion at some of the world's biggest container ports saw mountains of containers stacking up worldwide in 2004

importing Chinese goods (Los Angeles, Long Beach and Rotterdam) were some of the worst affected.

Elsewhere, an explosion in Brazil's exports over the past three years – combined with serious under-investment in its ports – created serious problems throughout the country, with Itajai, Santos and Sao Paulo experiencing some of the worst congestion.

In addition, several port and terminal operators appear not to have satisfactorily geared themselves up to handle the increased number of super-generation container vessels entering service. These vessels spend longer in port as the import, export and transshipment exchanges are much greater and this can put pressure on both the berth and yard space.

In Europe, congestion was largely infrastructural, but in the USA a shortage of labour was the single biggest issue. At times during the summer, the ports of Long Beach and Los Angeles were reporting gang shortages of 40 to 50 people per day. This resulted in fewer cranes being assigned to individual ships and led to slower turnaround times and extended stays at the berths.

Whatever the cause, in both Europe and North America port congestion was compounded by problems landside, with gate capacity limited, rail capacity under pressure, highways crowded and truck drivers in short supply. This resulted in interruptions to the normal flow of cargo through the terminals, eventually causing a gridlock in the yard.

Problem solving

In simple terms, port congestion can slow economic activity and reduce a country's overall competitiveness in international markets. If there is a delay getting the container moved away from the port (or to the port if it's an export load) then the whole distribution network or logistical system is negatively impacted – this will ultimately lead to a form of gridlock.

At the height of the problems in southern California in September and October 2004, more than 90 ships were either at the berth or at anchorage awaiting a berth. This compared with a daily norm of between 35 and 50 ships and led to significantly longer vessel turnaround times. Ships were riding at anchor or in port for between eight and 10 days compared with an average of two to three days in normal circumstances.

An alternative is to seek a different gateway, but trade almost always finds the best route to take and changing this will result in a combination of greater time or cost, or a combination of both.

Building new ports or adding capacity is an obvious solution, but not a short-term way of solving the problem. Construction is an expensive and time-consuming option, even once environmental and funding issues have been resolved.

In any case, additional capacity further increases the pressure on the inland infrastructure and any congestion issues or bottlenecks in the transport system soon become apparent. It is also not always possible to build more capacity in the traditional sense. At LA in Southern California, for example, there is no

During 2004 congestion hotspots were found in:

- Southern California in the USA
- Benelux and UK in northern Europe
- the Mediterranean, particularly the hub ports of Gioia Tauro in Italy, Piraeus in Greece and Malta's Marsaxlokk
- India
- West Africa and Durban in South Africa
- Brazil, particularly the southern ports of Sao Francisco do Sul and Santos

land available. So an expensive and time-consuming landfill project was undertaken to complete Pier 300 and Pier 400. However, this is often a global problem and LA should not be considered a one-off.

Ports need to consider fully maximising their available capacity through more efficient use of machinery and working practices first, before simply contemplating construction alternatives.

Carrot and stick

In Europe, 2004 saw increased feeder activity, with CMA CGM, Mediterranean Shipping Company and OOCL all opting to relay more of the UK's import and export cargo via northern European ports. Although the moves were partly related to congestion at the ports of Southampton and Felixstowe, they were also attributable to landside capacity issues and driver shortages. Moreover, operators of barge services up and down the Rhine waterway system encountered serious delays, with two to three days the norm in securing berthing space at Rotterdam and Antwerp during the height of the crisis in July and August. This compared with average delays of 24 to 36 hours for line haul tonnage.

Elsewhere, the Indian Government dealt with rising levels of congestion at Jawaharlal Nehru port by temporarily relaxing its cabotage law, thereby allowing foreign carriers to relay international cargo between Indian ports. In addition, tariffs were lowered at the neighboring port of Mumbai and feeder vessels were encouraged to use this port.

An alternative scenario, and one that had to be regularly adopted during 2004, was the need for shippers and consignees to build additional time into their schedules and to hold more inventory at local warehouses and distribution





“Current estimates state container handling will have doubled by 2014”

centres— the so-called ‘safety valve’ approach.

Looking ahead

The last couple of year’s growth surge in container handling doesn’t look like stopping immediately, so this congestion problem is unlikely to end any time soon either.

Annual world container port handling activity is forecast to grow by 12.1% and 8.5% in 2005 and 2006, respectively. Thereafter, Drewry Shipping Consultants expects growth rates to level off to between 6% and 7% in the period 2007-2009. This is due to a slowing rate of container penetration and the assumption that the outsourcing process to China will taper out.

In terms of container throughput volumes, the estimated 356M TEU handled in 2004 will increase to 399M TEU in 2005 and about 433M TEU in 2006. In 2014, an estimated 703M TEU will be being handled at the world’s ports, a figure that is almost double today’s average handling levels.

India, which is already experiencing very high utilisation levels at several of its ports, is at very high risk from congestion. This is partly attributable to the country’s onerous bureaucracy and lengthy bid and concessionary procedures that delay new terminal development projects.

On a global basis the obvious answer is to build more container terminals, but arduous planning and environmental constraints (especially in North America and Europe) mean that it is taking longer and becoming increasingly difficult to develop new ports.

Ports need to invest in new technology, such as double spreaders on ship-to-shore gantry cranes and information systems as a means of raising terminal productivity. However, it is crucial that investments are supported by hiring skilled personnel. Attention should also be given to reducing the amount of free time that containers stay in a terminal or raise rates so that it is not attractive for importers to do this.

Other suggestions that should be considered to improve this situation include construction of dedicated truck lanes to and from ports. This system is already being used to very good effect at La Spezia in Italy by Contship Italia Group.

Additionally, more inland depots could be used for the storage and distribution of containers, thereby freeing up the marine terminal and greater use could be made of intermodal and rail services.

Arguably, long-term and effective solutions will only come about if all parties in the supply chain are involved in the process. This means the ocean carriers, port authorities and terminal operators will all have to get together with logistics providers, truckers, railroads and governments at both the national and local levels if this paralysing congestion is to be relieved.

Dean Davison is a London-based senior consultant at Drewry Shipping Consultants, specialising in shipping, intermodal and port activities. More details are available online at www.drewry.co.uk

Tsunami survival

Dr Yuzo Akatsuka explains how a reinforced harbour wall helped Male, capital of the Maldives, weather the December 2004 tsunami



Source: Pacific Consultants International

Male's survival of the Indian Ocean tsunami has been largely attributed to its seawall

As the news cameras rolled into action on 26 December, beaming out pictures of the devastation wrought across the eastern Indian Ocean and tales of waves hitting as far west as Mombasa, it was hard to imagine that there could be anything left of the atolls in the Maldives.

With the average height of the 1,190 island chain only 1.5m above sea level, it was easy to imagine the tsunami's monster waves wiping the country from the face of the map. But when the waters receded, it appeared that the country had escaped relatively lightly in comparative human terms with other countries in the region. In total across the country, 82 people lost their lives and another 26 are still missing.

Nevertheless, official estimates state that 40% of the country's entire landmass was under water at one point and the psychological impact on the country's population was understandably huge.

Some of the smaller islands may have disappeared for ever, but by contrast, the capital island of Male's 70,000-strong population suffered no casualties and only very minor damage.

Tsunamis generally rise in deep sea and reduce speed approaching land as the slope of the seabed forces the water up into towering waves. Most of the very badly-hit areas had gently shelving beaches, which caused the 30m high waves. By contrast, Male is built on a sunken volcano so the seabed contours are very steep, rising almost immediately from deep water and the waves didn't have time to build.

Previous form

December was not the first time a tsunami had hit the Maldives. In April 1987, Male suffered serious damage from high waves that struck the island without any meteorological warnings.

There are a number of reasons for Male's survival of the latest (and much bigger) assault, but the key difference this time was that Male now boasts a thick protective tetra-pod seawall projecting around the port, which broke the majority of the waves' momentum, shielding the harbour and most of the town from the worst effects.

This 6km seawall was built around the island following a study by Japanese coastal engineering specialist Dr Yoshimi Goda, in the immediate aftermath of the 1987 destruction. Funded with a Japanese grant, the major construction programme cost ¥7.5Bn.

The construction was quite a challenge. With a lack of suitable material locally, all of the construction blocks had to be shipped in from south Asian countries. A lack of fresh water further meant that desalination plants had to be constructed to produce water to mix with the concrete. All of this meant that though a feasibility study was begun in 1988, the project wasn't completed until 2002.

So solidly constructed was the wall that it withstood the waves with only minor damage to the northeast. Though the island was subsequently water-logged and its low water table ensured that it took some time for the water to drain away, the island escaped the fate of many of its neighbours without seawalls.

Walls and warnings

Male's seawall obviously played an important defensive role in protecting the island, but other countries in the region also survived the tsunami.

In Myanmar, for example, the government monitored the earthquake news and issued tsunami warnings through telecoms networks. This was reported to have worked well and the death toll was limited to 59 people, mostly in the coastal communities where either telephone or radio was not available.

Further north, Bangladesh's precautions for the regular cyclones that hit the area proved helpful against the tsunami too.

The country started to build cyclone warning networks in 1970 and in 1991, began construction of cyclone resistant high-rise shelters for each seashore community with Japanese funding assistance. By the end of 2003, 1,300 shelters had been completed at 1.5km intervals along the cyclone-prone zones. These preparations seem to have kept the tsunami's toll low.

Dr Yuzo Akatsuka is emeritus professor of engineering at Toyo University in Japan.



Dredging under pressure

Bo Lerenius, CEO of Associated British Ports (ABP), warns that the EU Water Framework Directive could devastate dredging and smooth port operations

Dredging plays a vital role in the development and maintenance of all ports and harbours, which makes it absolutely crucial to the prosperity and sustainability of not only our industry, but ultimately to national economies as well.

Without dredging, our industry would soon grind to a halt and the cost of importing and exporting goods would spiral. It is for this simple reason that regulatory legislation governing dredging activity should not unduly burden the development of waterborne trade.

In virtue of my position as group chief executive of the UK's largest ports group, and one that owns and operates its own dredging company, UK Dredging, I am keenly aware of

the fact that environmental-protection measures are now a fundamental consideration in the drafting of regulatory legislation.

This is obviously an important step, and is one that ABP has welcomed. We have always taken our environmental responsibilities seriously. As such, we work closely with many relevant organisations to ensure that we meet our environmental obligations and fully support legislation that improves the level of sustainable development within our ports. The Water Framework Directive (WFD) has been described as the most substantial piece of environmental legislation to come out of Brussels and its impact on the port and dredging industries will be significant.

However, dredging is already subject to some of the most rigorous environmental regulations in the world, with the WFD following most notably in the wake of the European Union's Environmental Impact Assessment Directive and the Habitat & Birds Directive.

Don't get me wrong, I approve of the WFD's focus on the need for the sustainable management of our waterways, as opposed to a blanket policy of environmental protection regardless of cost. But I have great concerns about the WFD in its present form. As it stands, the implications of the legislation are unclear, and it lacks clarity on a number of extremely important issues.

A prime example of this relates to the WFD's strategy regarding the reduction of water pollution. The commonly accepted interpretation of this suggests that all dredging operations could be faced with the nightmare prospect of having to treat all dredged material prior to disposal in order to remove contamination.

A study conducted by ABPmer - ABP's marine environmental research subsidiary - has estimated that such a proposal would increase the cost of maintenance dredging by up to 20 times! It is obvious that such a proposal would

be prohibitively expensive with apparently little or no environmental benefit.

Furthermore, questions arise regarding even the technical feasibility of this process, undermining the probability of the strategy's success.

These concerns have been raised with the EU and they have recognised the problem. It is therefore with much interest that ABP awaits the clarification of this position in the publication of the so-called 'Article 16 daughter Directive' in late 2005.

Great suspense

A big question mark also hangs over the position the WFD takes with regards to suspended sediment.

It is common knowledge that many estuarine and coastal waters can have naturally high levels of suspended sediment concentrations, but the WFD has classified such sediment concentrations as being pollutants and aims to reduce them.

Such measures have an obviously significant impact on the methods of managing sediment disturbance and disposal, yet would lead to little, if any, positive environmental gain.

We also have concerns about the methods which the WFD will use to justify the designation of so-called 'heavily modified water bodies'. While we welcome the provisions in the directive for potentially setting less stringent objectives for water bodies that serve an important navigation use, this process is subject to a number of strict tests.

Ultimately, the implications of these tests could be that some ports might have to close, or that trade be directed to rival ports. This is an alarming prospect. It is therefore vital that such tests take full account of all economic, environmental and social issues and that precipitate decisions are avoided.

In fact, the WFD does little to address the problems of historical contamination of sediment altogether, treating all as new and undesirable. The ports industry works alongside myriad varying sectors, all of whom have a responsibility to ensure the sustainable management of the country's waterways.

The cloudy questions of retrospective liability and the application of the 'polluter pays' principle will all come to a head when measures to achieve the WFD's objectives are set in place.

It's all in the spin

Obviously, some possible interpretations of the new law could have very serious consequences for everyone involved with our industry.

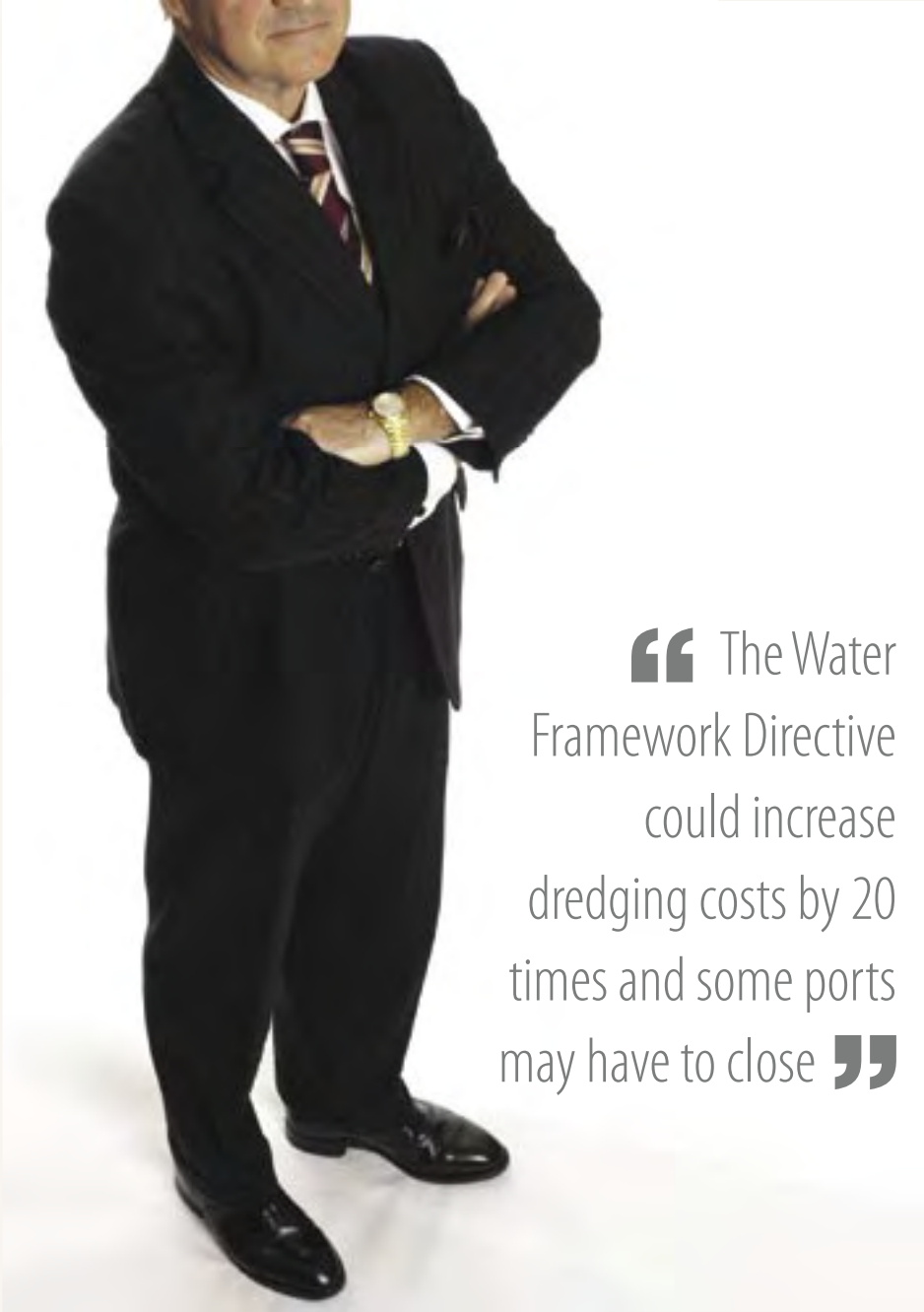
Thankfully, however, the EU has recognised the discrepancies between the WFD and the EU maritime and inland water transport strategies, and has made a commitment to

examine the issues raised. Yet it remains to be seen if any substantial gains will be made.

I believe that any acceptable draft of the WFD must be clear in terms of how it stands on important issues and must strike a fair balance between commercial interests and environmental needs.

It must also take into account the issues of proportionality, efficiency and equality. The objectives set for tackling environmental degradation must be considered proportional to the benefits accruing from an improvement in the environment.

Similarly, any methods adopted to meet these objectives should be cost-effective in their application. Finally, in the interest of equality,



“ The Water Framework Directive could increase dredging costs by 20 times and some ports may have to close ”

the implementation of WFD measures should be consistent across the EU member states to ensure a level playing field for the ports industry.

Given that the UK dredging industry is already subject to the toughest environmental regulations in the world, it is my belief that we need strong and clear justification for further measures over and above those already in place. Once implementation gets underway, it is our duty to play a prominent part in the meaningful dialogue that should take place, both at national and European levels, to ensure that a proper balance is struck between the achievement of the WFD's goals and the future of the ports industry. **PH**



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Clearing the air between ports and shipping

P&H looks into the strictures and requirements of the new MARPOL Annex VI ship emission controls

On 19 May 2005, a strict new ship emissions regime comes into force, aiming to clear up exhaust gases and lead to much cleaner air conditions in and around ports. As well as being a welcome breath of fresh air, the legislation has a number of far-reaching implications for shipping and port operators.

Drafted by the International Maritime Organisation's Maritime Environmental Protection Committee (IMO

MEPC), the new controls come into force as Annex VI to the MARPOL 73/78 Convention. This mouthful of acronyms and legislative jargon is helpfully subtitled Regulations for the Prevention of Air Pollution from Ships and is also known simply as Annex VI.

Having first been mooted at the formation of MARPOL in 1973 and then only finally agreed in 1997, the issue of air quality control governed by Annex VI is a drawn-out and thorny one. But with gradually strengthening environmental lobbying over time and increasing studies into acid rain — caused mostly by nitrogen oxides (NOx) and sulphur dioxides (SO₂) from power plants, vehicle and ship exhausts — it was only a matter of time before the shipping industry had to step into line.

Annex VI may have been a long time coming, but this time has been used to thrash out the limitations and requirements needed to clean up emissions, provide ship operators time to become compliant and also for sufficient flag states to ratify the laws for it to reach quorum.

Sky's the limit

As far back as 1990, Norway submitted a paper to the MEPC that estimated ships were spewing 4.5 to 6.5 million tons of SO₂ into the atmosphere every year. This equated to roughly 4% of total global sulphur emissions. NO_x emissions were even worse, standing at 5 million tons, or about 7% of total worldwide emissions.

Far out at sea, the problem was deemed to be minimal, but in relatively constrained environments like the English Channel and Strait of Malacca the air pollution was becoming noticeably bad. Likewise, studies were revealing that NO_x emissions were playing a substantial part in localised health problems around ports, as well as shouldering the blame for acid rain.

Furthermore, environmentalists were lambasting the shipping industry for contributing to the depletion of the ozone layer. Norway estimated that the shipping industry was responsible for substantial emissions of ozone depleting substances (ODS). Every year, shipping was releasing up to 6,000 tons of chlorofluorocarbons (3% of global totals) — mainly from air conditioning and refrigeration — and up to 400 tons of Halon emissions from fire fighting equipment, a whopping 10% of worldwide totals.

Clearly, with technology around to lower these exhaust emissions, but no legal compulsion to install it, something had to be done. Which is where Annex VI comes in.

In line with these studies, MARPOL's latest Annex sets strict limits on NO_x and SO₂ exhaust emissions and also prohibits deliberate emissions of ODS. Under these restrictions, no engine is to produce more than 17g/kWh at tick-over (less than 170rpm) or 9.8g/kWh at over 2,000rpm. To reduce the SO₂ emissions, no fuel is to have a sulphur content greater than 4.5%.

Within the European Union (EU), these measures should reduce SO₂ emissions from shipping by over 500,000 tonnes per annum by 2007. According to an EU statement, this will equate to "at least 2,000 fewer life years lost through long term exposure, 750 fewer deaths from short term exposure, and 300 fewer hospital admissions for respiratory illness."

Pay at the pump

Anybody who owns a vehicle will have noticed that fuel pumps have changed over the last few years and most countries now offer a bewildering array of fuels, from lead-replacement petrol for classic cars, through low-sulphur diesels to high-octane, high-performance petrols. The shipping industry is no different and various fuel types and qualities have been available for ships for quite a while now.

This variety is absolutely central to the new emission controls, because the choice of low-sulphur fuels is the number one way of reducing emissions. As such, under Annex VI, these fuels are becoming far more seriously policed, bringing a raft of new controls and admin challenges for ship operators.

For example, ships may only bunker with fuel from companies registered with the appropriate authority to the right quality and they must retain the bunker receipt, stating the exact sulphur content of the fuel and

composition. This receipt must then be kept on board for at least three years. In addition, the fuel supplier must take a sample of the fuel at the ship's receiving manifold, seal and sign it, along with the ship's master, and this must be retained for at least 12 months.

Though reasonably straightforward, the issue is complicated by certain areas — including the Baltic Sea and English Channel — being declared SO₂ Emission Control Areas (SECA), in which the greatest permitted sulphur content of fuel is only 1.5%. As such, vessels trading in and out of these areas will either have to operate solely on low-sulphur fuels or will have to adopt a multiple fuel tank approach. Either of which will be expensive and bring yet more regulatory testing, to prove that the vehicle is running on the appropriate fuel in the appropriate areas.

Concerns have also been raised by a number of shipping observers, including Det Norske Veritas Petroleum Services, that there is a real shortage of ultra-low sulphur fuels worldwide, with existing bunker concentrations in areas such as West Africa and South America, rather than near the northern European SECAs. This will obviously have huge logistical knock-on effects for bunkering ports as well as the actual shipping operators themselves.

Enforcement Control

Annex VI applies fully to all vessels built on or after 19 May 2005 and over 400gt that are run by flag states signed up to the protocol. Vessels built before this date have a window of leeway to obtain compliance.

Any vessels built on or after 1 January 2000 must have main diesel engines compliant with the regulations, as must any others with major engine conversions. This 'major conversions' clause means any engine whose output is increased by tuning or modification, or is replaced wholesale and must therefore be certified compliant.

In addition, signatory states have the right to revise these requirements downwards, to include smaller vessels, should this be deemed necessary.

Responsibility to ensure compliance with the Annex rests with the individual Flag State signatories and after 19 May 2005, signatory states can also require foreign-flagged ships operating in their waters to comply with the MARPOL requirements. These vessels will of course then need to be certified by their own flag state.

Certification will be awarded following regular assessments, with annual scheduled checks and a full survey every five years. Random port state inspections may also be carried out. These assessments will cover not just the engine emissions from the ship's exhausts, but also all applicable machinery, including fire-fighting gear, refrigeration system maintenance, fuel bunkers and incinerators.

Though explicitly aimed at ships, there is a tacit recognition that ports also have a part to play in reducing air pollution. As such port authorities have an implied obligation to implement their own emission controls around the port, using vehicles running on low-sulphur fuels and environmentally friendly dockside cranes. **PH**

Smoking exhausts as seen left will soon be legislated into the past under MARPOL Annex VI



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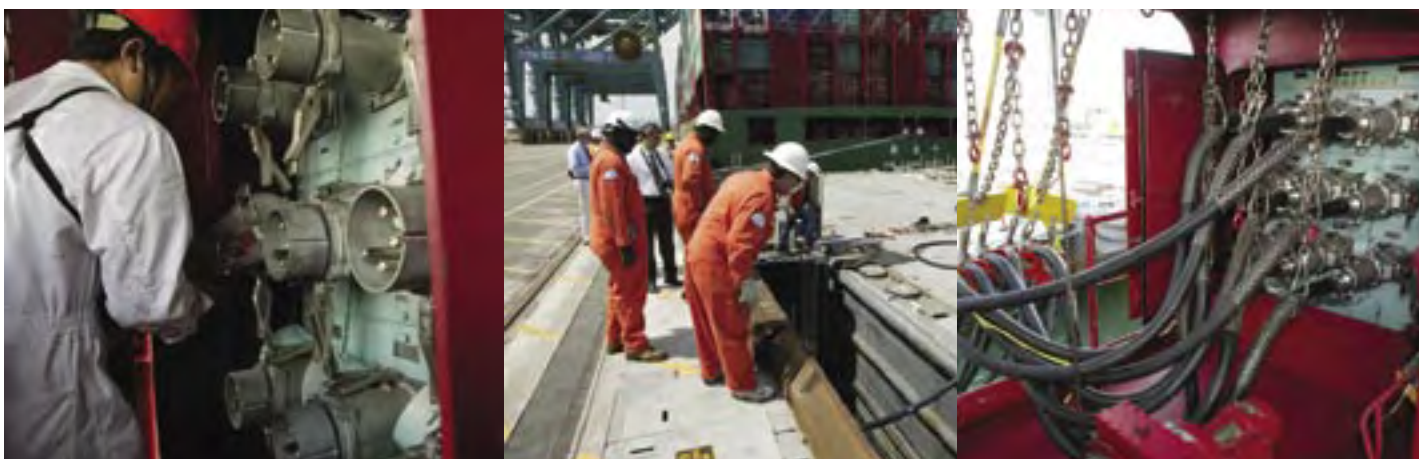
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LA cleans up its act

Exhaust emissions have long contributed to the legendary air quality problems facing Los Angeles, *P&H's* Will Watson investigates its attempts to shrug off these dirty credentials

Spurred on by politicians and environmentalists intent on cleaning the air in the Los Angeles basin, the area's two ports have launched sweeping programmes to reduce emissions from trucks, equipment and visiting vessels.

'Cold ironing' - the practice of shutting down onboard engines and generators in favour of shore power - is already a growing success at the Port of Los Angeles and will soon be used at the Port of Long Beach as well.

The Los Angeles basin is particularly susceptible to smog because emissions from vehicles, ships and factories are generally trapped by prevailing winds from the Pacific and several mountain ranges that encircle the area. Environmentalists place most blame for the root causes of the smog on the ports, because of 'hoteling' ships - churning out exhausts both alongside and in the harbour - and trucks that often spend hours in traffic or waiting to pick up or drop off loads.

Both ports are planning varied strategies to alleviate the problems. These range from replacing old, more polluting cranes and cargo movers, to opening gates to allow truck traffic to avoid peak congestion periods on area highways, as well as the full cold ironing system.

At the core of much of the LA-based activity is the city's activist mayor, James Hahn, who for years has been pressuring various interests throughout the smog-choked city to begin reducing emissions. "I am committed to cleaning up the air that my children

and my neighbours breathe in the harbour and will not rest until my plan for emissions reductions is fulfilled," said Hahn at a March meeting to review ongoing port efforts.

The air quality task force, which first assembled last fall spent two days in mid-March reviewing land- and ocean-emissions reduction strategies. The task force analyzed more than 60 control measures that would improve air quality in the face of port growth forecasts through 2025. The task force will next present Hahn with an overview of the strategies under consideration for returning port-related nitrogen oxides (NOx) and particulate matter (PM) emissions to 2001 levels, despite the Port's projected growth.

Plugging in

China Shipping was the first to sign up for what Los Angeles calls its AMP (Alternative Marine Power) cold ironing system. The port's Pier 100 was AMP equipped early last year at a cost of over US\$800,000 and opened for business in June 2004. Since then, eight AMP-equipped China Shipping container vessels have called at the terminal numerous times, spokeswoman Theresa Adams Lopez told *P&H*. In addition to its AMP terminal, China Shipping also pledged last year to use cleaner-burning diesel and only operate newer vessels on California port calls in an effort to further reduce air pollution.

But the first vessel to call at the new terminal was the NYK *Atlas* and that vessel will have its own home by year's end, when NYK's terminal at the LA port is AMP

Plug me in. A vessel is attached to the mains power in Long Beach

equipped. NYK says the *Atlas*' use of at-berth electricity results in annual emission savings of about 31 tonnes of NOx emissions and 1.4 tonnes of particulate matter. The new NYK terminal will also be 'second generation' in that it will not require an intervening barge equipped with transformers to adjust the voltage.

At the same time, the Port of Long Beach is activating its first cold ironing terminal in conjunction with BP West Coast products. Expected to open next year, the terminal will cost the port some US\$2.5M. This is in addition to the US\$350,000 already spent on the original studies that suggested the scheme.

On top of this, BP has committed itself to retrofitting two of its tankers with shoreside electrical connections at a cost of about US\$1M each.

Both the port and BP are on schedule. Long Beach spokesman Art Wong told *P&H* that architectural drawings are now being prepared for the new facility. Meanwhile, BP spokesman Phil Cochran says two of the company's fleet of Jones Act tankers that regularly travel between the Alaskan oil fields and Southern California have been chosen as prototypes for the shore power project.

As for the costs, BP refinery manager Tim Scruggs stated, "plugging in our ships will cost us more to off-load the crude, but the increased costs are relatively small when you consider the environmental benefits from the project."

Long beach port director Richard Steinke praised BP's participation and said, "This comprehensive approach to cold ironing will be closely monitored by the shipping industry worldwide as the bellwether of where this industry and the future of international trade is eventually headed."

Concern over ship exhaust emissions has led LA's two ports to install a clean shore-to-ship power system

Growing appeal

In Los Angeles, the move to cold ironing doesn't end with cargo vessels and tankers, however. The LA port board has been asked to spend another

More good housekeeping

In addition to cold ironing, LA's ports are implementing the following strategies to reduce emissions:

- Gates will be opened into the evening and night hours to allow trucks to enter and leave during low traffic periods and when wait times at quayside are shorter.
- Trucks using the port during peak hours will be charged a fee.
- Older equipment like cranes, forklifts and container movers will be replaced with newer models with better emissions ratings.

US\$810,000 to install an AMP pier at the San Pedro cruise terminal. Several lines serving the port are already AMP equipped since they also serve Alaskan ports, which are required to be outfitted with the cold ironing connections. Lopez said Princess cruise line ships are ready to plug in, adding that the port is in talks with other lines to bring them into the environmentally friendly programme.

Princess spokeswoman Karen Tetherow agrees that their fleet is ready, noting that all seven Princess cruise ships calling on West Coast ports have been specially fitted with US\$500,000 high-technology onboard systems that allow them to connect with shore power. They have been doing so during port calls in Juneau, Alaska since 2001 and will begin 'plugging in' in Seattle, Washington, effective with this summer's Alaska cruise season. The Carnival subsidiary was the first cruise line to innovate cold ironing with its Alaska cruises and Dean Brown executive vice president of Princess fleet operations says the programme is both innovative and environmentally responsible. **PH**



Going green at Gothenburg

Sweden's major port is the leading exponent of 'cold ironing' in Europe. *P&H* discovers why

The Port of Gothenburg has had a pioneering role in the history of 'cold ironing' shore-to-ship electricity stretching back to January 2000, when the port launched a high voltage service for general cargo and ro-ro vessels. Unlike in LA, there was no legal compulsion for this expenditure, so what made the port install the interface, and why has it continued to develop and increase the use of land-generated electricity to ships?

Green ambitions

There were several key reasons, but the port stresses that the green ambitions of forest product shipper Stora (later Stora Enso) were central to the decision.

Stora had designed a revolutionary logistics system for paper exports from Swedish mills via Gothenburg. This was based on a new intermodal cargo unit that made stripping and stuffing the products at the port unnecessary. New ro-ro ships were built and in line with the environmentally-conscious profile of the concept, these were equipped with a cold-ironing system.

All three identical vessels in the service operate between Gothenburg and Zeebrugge in Belgium, with six departures a week in each direction, always using the same berths. Net operations time for a call is typically six hours, although lay-times can sometimes be longer.

Shipper pressure wasn't the only reason behind the decision, however. The local county mandated that cold ironing be at least an aim, if not a condition, before an operating licence would be issued.

The port owners also expressly stated that Gothenburg would contribute to a sustainable, environment-conscious development and committed itself to work pro-actively towards this.

Counting the cost

Local Gothenburgers have benefited from the system in air quality terms and the port's development towards cleaner bunkers made shore-to-ship mains more financially competitive than diesel-generated electricity.

According to the port, the reduction in environment-related costs is between 15 and 75 times the cost of the system installation itself.

A 2004 MariTerm AB report puts this installation cost between €10,000 and €500,000 (US\$13,000 to US\$640,000), depending on whether the installation had been prepared or not. Retrofitting an existing vessel is estimated at €60,000 – €140,000, while fitting in a newbuilding is estimated at €40,000 – €70,000.

The high-voltage current used in the Gothenburg solution is a convenient way of feeding a vessel with electricity. Thanks to improvements in the power supply, it is possible to feed 10,000 volts through one cable from shore to ship. With 400 volts, a bundle of cables would be necessary.

It has also proven a very convenient system and no extra personnel are required. In Gothenburg, the ship's crew connects and disconnects in minutes.

Two other important effects should also be noted. There's a better working environment for ships' crews, port personnel and neighboring areas, and a significant reduction in noise.

On top of this, the port believes that with shore-fed electricity you could increase port traffic without increasing the emissions to the air.

Spreading the word

So successful has the Stora service been that others have begun to fall in line too. Since the introduction of the high-voltage feed alongside at Gothenburg, North Sea ro-ro giant DFDS Tor Line has had a series of three large ro-ro vessels built with shore-to-ship mains system fitted.

Altogether, the ro-ro terminal's cold-ironing covers two berths, six vessels and twelve calls a week. The reduction in emissions from this traffic using shore-to-ship mains during port calls is 80 tonnes of nitrogen oxides, 60 tonnes of sulphur oxides, and 2 tonnes of solid particles every year.

With this success, every berth that is being built or re-built at the port – including the major enhancement of the port's container terminal currently underway – is now being prepared for fitment of the shore-to-ship cold ironing systems.

The ro-ro terminal is also being further adapted for new traffic, with the vessels and berths being outfitted with a shore-to-ship mains interface right from the outset.

Gothenburg is taking a pre-emptive approach to the issue, believing that it is too late to start work on a shore-to-ship mains feed only when there is a defined requirement. However, lack of a standard for the interfaces and cost considerations make it unwise to install complete systems at the berths at too early a stage.

The different electricity frequencies used by vessels – 50 or 60 hz – could also pose a problem for the ports. However, Port of Göteborg AB has drawn the attention of the European Union to the standardization matter and this is now included in the EU's strategy for emission reduction. **PH**



Managing the ballast water burden

Ballast water case study - Leticia Greyling assesses the environmental impact of ballast water on South Africa's coastline

South Africa's National Ports Authority has surveyed Richards Bay (above) to measure the impact of ballast water dumping

Roughly 12 billion tonnes of ballast water is transferred around the world every year, which means that at any one moment, it is estimated that over 4,500 individual species are being carried around the globe in this water in ships' holds. Invasive marine species are a major threat to the world's oceans today, whether introduced either intentionally - for economic or agricultural purposes - or accidentally via tourism, travel and trade.

Ballast water accounts for 41% of the marine introductions in South African waters and the impacts of algal blooms have been especially strongly felt, with crayfish walkouts, mass fish mortalities and abalone shellfish fatalities being amongst the most significant causes of concern.

The problem arises when water taken up by a ship contains unwanted marine organisms. These may be bacteria and other microbes, planktonic species, small invertebrates and the spores, eggs and larvae of larger species.

This is compounded by the fact that almost all marine species have planktonic stages in their life cycle, which may be small enough to pass through a ship's ballast water intake ports and pumps. In essence, this means that even species with large adult stages or attached to the seabed when mature, may still be transported in ballast water.

These are not only a real concern for the local coastal communities and subsistence collectors who are dependant on these marine resources for their daily survival, but also at a national level.

Exact costings of damage to the South African economy are still underway, but ballast water-carried Comb Jelly invasions in the Black Sea cost an average

of US\$500M per year. Likewise, the European Zebra Mussel has been introduced to the Great Lakes via ballast water and invaded more than 40% of the US waterways, where it fouls water intake pipes and so forth. Damages there have resulted in costs escalating to over US\$5Bn to date.

There is, therefore, a serious threat not only to natural biodiversity, but also to human health, and potential losses for mariculture and associated industries.

Think global, act local

Mindful of the scale of this problem, the International Maritime Organization (IMO) formed the Global Ballast Water Management Programme (GloBallast) with the United Nations Development Programme and the Global Environment Facility, which ended at the close of last year.

The project's aim was to manage the threat of invasive alien species introduced during the uptake and discharge of ballast water at ports around the world, by assisting developing countries to implement existing international guidelines and reduce the transfer of invasive aquatic species. The programme was piloted in six countries, including the Port of Saldanha in South Africa.

A welcome breakthrough came at a diplomatic conference in February 2004 when the International Convention for the Control and Management of Ships' Ballast Water and Sediments was adopted.

In South Africa, no formal ballast water regulations currently exist, though voluntary compliance with IMO guidelines is encouraged and a management structure is being developed. A national ballast water policy has also been drafted, but full adoption is still



pending while ratification of the IMO Convention is currently being investigated.

Saldhana is being used to develop a port-specific ballast management plan. Once this has been completed, roll-out into other ports will follow, using the same guiding principles, fine-tuning each plan to each port's requirements and constraints.

Charting the problem

GloBallast funded and conducted the survey at Saldhana in 2001 and following that, the National Ports Authority funded the completion of marine alien surveys in South Africa's other deepwater ports at Richard's Bay and the newly-built Ngqura (Coega). The latter was undertaken before construction began on the port, enabling a unique opportunity to assess introductions over time.

These surveys established a database of existing natural populations and known introduced species, as well as using it as a monitoring tool to track introductions through following surveys. The surveys were executed with standard protocols governing the survey process, though some were adapted to fit local environments.

Although South Africa's draft policy calls for a blanket-approach to ballast water management, rather than a risk or selective approach, risk assessments remains an effective tool, assisting with monitoring plans and prioritising activity.

For example, the risk assessment at Saldhana threw up an interesting result that it is similarity of port environment – and not necessarily ballast volumes dumped – that are key to invasive species getting a foothold. This has subsequently assisted prioritising initiatives in the other ports.

Forward planning

Port-specific ballast water management plans are therefore

key to a cooperative management approach and a workshop was held in Saldhana between relevant local and national stakeholders.

Crucially, this developed timelines to structure where and when local ballast water management can be taken forward as technologies develop.

Finally, a 3-day training course – an Introductory Course on Ballast Water Management – was held in Cape Town at the beginning of 2004, under the auspices of GloBallast. Developed under IMO guidelines, this course was presented by local South African specialists, dealing with a wide variety of topics ranging from policy development and awareness, to port and ship management.

Ballast water management has received well-deserved attention in the last few years, not only in South Africa, but across the whole continent with a regional task force set up through GloBallast, and the inclusion of management initiatives and action plans in various regional projects, agreements and conventions. Kenya and Mauritius have also been especially active in this regard, and have established their own national task groups and ballast water action plans.

Although these marine alien invasions are still not fully understood by the science or shipping community, the need to act upon this challenge and manage the risk is one that's been taken seriously at various international levels. The success of this challenge will depend to a large degree on the full cooperation and responsible commitment of everybody concerned from shipping operators, to port managers and local authorities.

Leticia Greyling is manager of environmental research and best practices at the National Ports Authority of South Africa. PH

Challenges ahead

Even though legislation and studies have gone some way to addressing the problems posed by ballast water carriage, several key challenges remain.

- Surveys – comparative, baseline data is generally not available and species identification and taxonomy expertise is scarce within South Africa (and the wider region).
- Legislative framework – the national policy needs to be adopted and ratification of the International Convention for the Control and Management of Ships' Ballast Water and Sediments should be investigated.
- Treatment – efforts should go into research and development of treatment technologies.
- Management – clear delineation of roles and responsibilities is essential for the implementation of international and national requirements.
- Cooperation – regional cooperation and assistance should be provided to developing countries to help them implement ballast water management.
- Funding – opportunities and support (especially for small island states) need to be revisited and addressed.

Rotterdam leases two suction hopper dredgers to maintain its approaches



Keeping open for trade

Bert Visser explains Rotterdam's approach to maintenance dredging

As one of the world's major commercial ports, Rotterdam's fortune rests on its ability to keep its shipping lanes open and harbour cleared down to the guaranteed depths.

Rotterdam is a tidal port characterized by its open access from the sea. In accessibility terms, this is a major asset as no time-consuming lock passages are needed for ships to reach their destination. However it is also a drawback, because it means that sediments have equally free access to the port and all of its basins.

As a result, maintenance dredging has to be constantly carried out. Every year, an average of almost 20M m³ of sediment has to be dredged from the maritime access to the port, the shipping lanes within the port area and around the harbour basins.

Two separate authorities are responsible for this maintenance dredging. The first of these, the Rijkswaterstaat (the Dutch Directorate General of Public Works and Water Management) dredges the maritime access channel in the North Sea, known as the 'Euro - Maas Channel'.

This channel is dredged to keep it at a depth of 24m, which is fairly impressive, given that the natural depth of the North Sea off the Dutch coast is only down to about 10m.

The Euro - Maas Channel is particularly important because as well as being the entrance to the port, it is also the seaway to the river Rhine, known locally as the Nieuwe Waterweg. As a shipping lane, the river is also dredged under the responsibility of the Rijkswaterstaat and in total, a yearly average of 14M m³ of material is dredged out of the access channel and the river.

In all of the port basins and canals within the port itself, the Port of Rotterdam Authority takes over

responsibility for care of the maintenance dredging.

Within the port, dredging mainly takes place in four distinct areas, known as the Europoort, Botlek, Town Harbours and Hartelkanaal. Of the average 5M m³ of material annually dredged within the port, the majority of it comes from the Botlek - about 2M m³ in total.

However, the Europoort area experiences the largest fluctuation in dredged quantities, with the annual amount ranging from one to 1.5M m³, though even over 3M m³ is not exceptional. This is mainly because the area is the closest to the open sea and extremely stormy conditions on the North Sea have a huge influence on the amount of sediment.

Technical means

Both dredging authorities mostly use trailing suction hopper dredgers to carry out their dredging.

However, in the harbour basins there are a lot of locations and corners that the hoppers can't reach, particularly near jetties and quay sides, for example. For that reason, the Port of Rotterdam Authority also deploys a powerful tug, equipped with an underwater plough to scrape up material to be dredged and take it to a location where it can be brought up by the hopper.

Additionally, in the smaller basins of the Town Harbours area where there is no space for the trailing suction hopper dredgers to manoeuvre, maintenance dredging is carried out by small inland grab hopper dredgers.

Neither authority has its own dredgers however, so all of the dredging equipment used is contracted out from dredging companies and private owners.

The Port of Rotterdam Authority, for example, has two trailing suction hopper dredgers under long-term contract, fulfilling the minimum basic need for dredging capacity in the port. On top of this contract, the port also has several 'option-charter' contracts with

most dredger owners in Western Europe, enabling it to deploy an extra dredger when needed.

In a spirit of cooperation, both authorities have an agreement that any dredgers under contract can be drafted to help in the other's area.

Waste disposal

Until the end of the 1970s, Rotterdam simply disposed of all of this dredged material at sea. But growing environmental awareness in the following decade led to the discovery that the sediment was badly contaminated with heavy metals, mineral oil and organic pollutants like PHAs and PCBs.

The Rijkswaterstaat and Port of Rotterdam Authority therefore decided jointly to build two confined disposal sites, the 93M m³ 'Slufter' site for lightly and moderately contaminated sediments and the 1.2M m³ 'Papegaaielik' for heavily contaminated dredged material.

These disposal sites were never meant as an everlasting solution, however. The contaminants in the sediments originated from industrial and household discharges into the Rhine and it was obvious that in order to obtain a sustainable solution for the contaminated sediment problem, something had to

be done about the discharges.

Therefore alongside the construction of the disposal sites, several projects were started up to significantly reduce the discharges into the river. In 1984, for example, the Port of Rotterdam Authority started up the 'Project Onderzoek Rijn' (Rhine Research Project).

This project has been very successful and established that over the past few years the water - and subsequently the sediments - in the Rhine and port of Rotterdam have become significantly cleaner.

As a result the annual amount of dredged material that has to be stored in the Slufter has dropped from approximately 5M metres³ in the late eighties and early nineties to less than a million at present.

It is intended that all sediment is to be clean enough to restart disposal at sea by 2015. The Papegaaielik was filled up with dredged material in 1999 and is scheduled to be dismantled by 2006, with its contents subsequently pumped into the Slufter.

An Environmental Impact Assessment carried out in the late 1990s further established that the Slufter could from then on also accept the more heavily contaminated sediments.

Bert Visser is the overseas correspondent for P&H sister magazine Dredging and Port Construction PH

The entrance to the Rhine needs to be constantly dredged to accept sizeable vessels



Taking control at Rotterdam

The Port of Rotterdam Authority used to install supervisors to constantly control the dredging process, but for some years now the port has been using a remote, online control system known as the Dredging Observe Control System (DOCS).

The heart of this system is a central dredging desk located in the office of the Nautical Service Centre in the Botlek. This dredging desk can monitor the activities of every dredger working for the port live and online, including all of the parameters relevant to the full dredging process, such as the position of the dredger, whether it is dredging, sailing, dumping or discharging. When a vessel is dredging, the desk also shows the position of the suction head, the density of the dredged material and the load in the hopper.

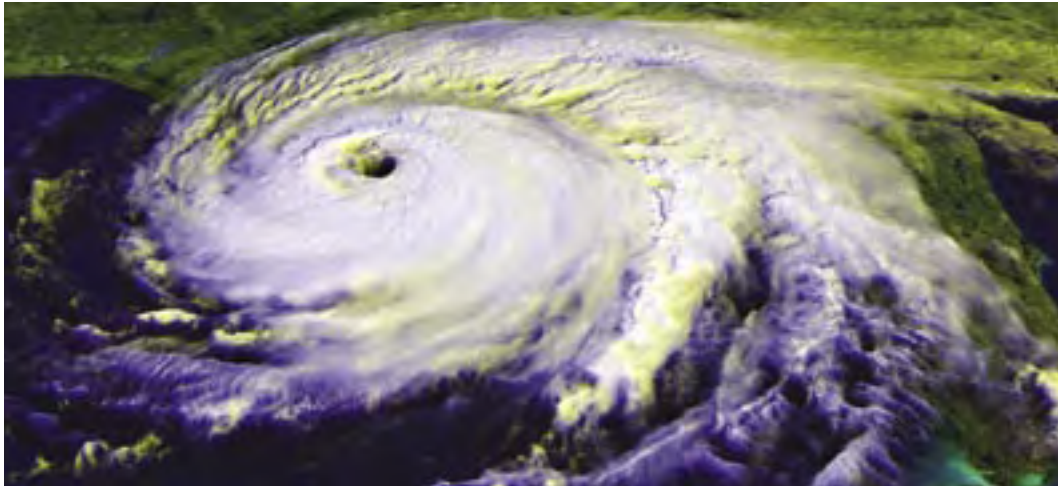
Command and control is greatly simplified as the DOCS

can display the results of the most recent hydrographic survey on the dredging desk, as well as onboard the dredger.

The original DOCS was developed by the Port of Rotterdam Authority itself, but new technologies have evolved in the field and the Authority recently decided to upgrade the system with the latest version of Reson's hydrographic and dredge monitoring package, PDS 2000.

Besides enabling the dredging process to be controlled online, the DOCS also records all of the data and the dredging activities, which can then be stored up and analysed later. This has proven very useful for administration purposes and can generate weekly and monthly reports that help form the basis of settling contractual regulations.

**Hurricane Ivan
ravages the
Alabama coastline**



Weathering the dredging storm

Ports in areas prone to violent storms have to face up to additional maintenance dredging challenges to ensure their ports remain open.

P&H looks at Alabama's solutions

Constant maintenance dredging is enough of a challenge in many ports, without having to deal with extreme weather events dumping additional silt and material in the way.

So ports in storm-wracked areas need to be prepared for this extra burden. The Alabama State Port Authority is a good case in point as it has to manage the fallout from hurricanes long after the actual event.

The authority is responsible for maintaining adequate depths at each of its 37 terminals at the Port of Mobile and of the Fiscal Year 2005 budget, US\$2M was allocated to dredging costs. Of this, about 60% is goes towards maintenance dredging activities at the McDuffie Terminal. The US Army Corps of Engineers (USACE) maintains a yearly dredging schedule to control natural shoaling cycles and without these USACE and Port Authority programmes, the channels and berths would silt up, preventing both cargo and passenger vessels from making the most of the port's strategic assets.

Quite aside from the direct damage that the hurricanes can cause to port facilities and coastlines, when a hurricane does hit, natural shoaling cycles are disrupted and sediment shifts can continue to occur many months after the storm has passed. So, in Hurricane Ivan's wake last September, dredging projects were stepped up to accommodate the change in the natural cycles, with the burden falling on USACE.

From St. Mark's in Florida to the Louisiana border, waterways were closed immediately after the storm passed and the Corps quickly mobilized to assess the damage. With the aid of several other agencies, the

Corps completed its surveys of approximately 400 miles of coastline within only six days.

The US National Ocean and Atmospheric Association, US Coast Guard, Gulf Intra-coastal Waterway Canal Association and Kirby – the New Orleans District and dredging contractor – all got together to help the Corps with the assessment.

While the damage could have been much worse and had little effect on the Mobile River terminals – though there was some silting along the McDuffie Terminal – the hurricane took its toll on Mobile's waterways. All of the channels had to be dredged to restore them to pre-hurricane conditions and maximum draft allowance, though with some restrictions that put a burden on shipping.

For example, the Mobile Ship Channel is normally maintained at a depth of 45ft and following the assessment, it reopened with a reduced, 43ft draft allowance. Today, the ship channel has re-opened to vessels drawing 45ft, with width restrictions

Theodore Ship Channel reopened to its normal 40ft depth, but some hurricane-related damage was sustained by Gaillard Island, the primary disposal area for the Theodore Ship Channel. The Theodore Industrial Canal re-opened with 10ft draft limitations.

"When a ship has to light-load in order to meet the draft restrictions, it's not bringing in its full cargo," said USACE coastal management branch chief Nelson Sanchez, "and that affects everyone down the line."

In line with this, the Corps' goal is always to complete all dredging projects as quickly as possible – not just hurricane-induced projects – and to restore channels and berths to their normal depths. **PH**



Dealing with undesirables

Japan faces a sizeable problem managing contaminated silt, but a number of technological innovations are now turning undesirable waste into a productive resource

Traditionally healthy Japanese diets of fish and shellfish are under threat from high levels of dioxins contaminating soil and silt around the country's ports and rivers.

These dioxins are organic pollutants accumulated in the shallow layer of silts within a couple of meters from the surface and are generally a by-product of industrial pollution, though they can be created by natural means too.

Because they are easily absorbed in the diet of fish and shellfish, they can easily enter the human food-chain and provide a serious risk to health. Worse still, they are persistent and according to the World Health Organisation, "the higher in the food chain one goes, the higher the concentration of dioxins," which is obviously bad news for us humans up at the top.

High-levels of dioxins are a known human carcinogen and can attack the nervous system, endocrine system, immune system and reproductive system. As such, it is easy to see that there is a clear need to remove as much of the contaminated sediment as much as possible.

However, this is easier said than done with traditional dredging methods, as the dioxins are insoluble and migrate with water turbidity. This means that as traditional hoppers are lowered to the seabed, they stir up the silt and only end up in propagating the

pollutants, rather than dredging them up so they can be disposed of safely elsewhere.

Japan's Penta-Ocean Construction was selected to take on this challenging problem and has come up with four innovative, new linked solutions to ensure that this material can be dredged up in an ecologically sound manner.

Floating the challenge

The floating silt is a particularly tricky challenge, because it has a very high water content and is therefore very tricky to dredge. Penta-Ocean's solution is simple in concept and fixes the floating silt into more easily controllable, stabilised material.

To do this, the company employs a floating platform with a metal cylinder that is lowered to the seabed to isolate a fixed area of the seabed, which is then treated to a stabilising solution. The cylinder houses a rotating agitator to whisk up the floating sediment and an outlet nozzle, through which a gelling agent is pumped to coagulate the silt.

Water can't escape up out of the cylinder, so it doesn't increase water turbidity and the silt stabilises and settles back to the seabed, where it can then be dredged up. According to the company, this process only takes about 60 seconds, which gives the Shallow

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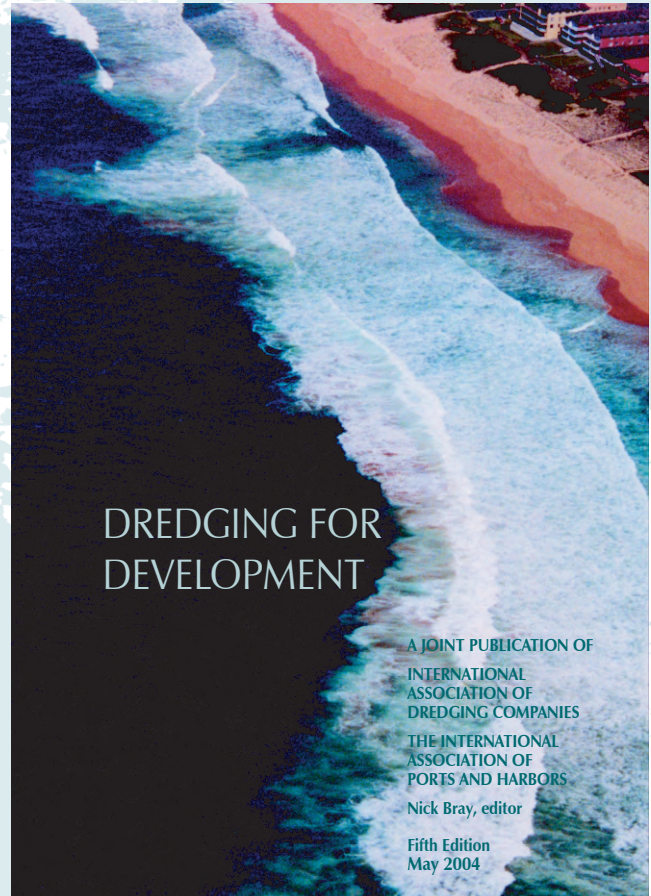
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**TOA Corporation's
Soil Separator
Management
system**

Soil Stabilisation System a clear advantage over slow-setting cement solutions traditionally used to fix floating sediment.

Trials with the system have shown that a surface layer of 40cm of sediment and 10cm of water can be stabilised and when the housing is raised, the newly-stabilised sediment rises above neighbouring silt and there is no noticeable turbidity.

Waste removal

The company has also developed a specially developed hopper bucket, known as the environmental clamshell, with US-based firm Cable Arm. This system uses a heavily modified hopper clamshell that only minimally affects the turbidity of the water and allows virtually none of the sediment to escape.

In particular, this clamshell design has a venting system in the reverse of the bucket that enables it to be lowered to the seabed with minimal disturbance, allowing water to flow up and through the clamshell. It also has over-lapping sideplates, a full closing mechanism at the back and full length rubber seals to ensure that when it is closed on a selected depth of sediment, none of it flows out on the way back up to the surface.

Additionally, it has a right-angled cutting edge that enables it to cut sediment to a flat level rather than the gaping jaws of a conventional clamshell bucket, which can over-dredge and leave a concave surface. Traditional buckets tend to over-dredge by around 50cm, but the environmental clamshell is more precise and only over-dredges to 30cm at most, leaving a flat surface that doesn't then require any further levelling treatment.

The bucket also boasts a sensor along the lip that warns the operator if the bucket unintentionally grabs an obstacle that would prevent the bucket from closing fully and thereby dropping sediment back to the seabed. Furthermore, it has a smaller contact area than traditional buckets, which means that only the blade comes into contact with the seabed, reducing the potential for turbidity still further.

Accuracy is all

Obviously, accurate placement of the bucket is absolutely essential to minimise any unnecessary seabed disturbance and water turbidity. As such, the system also uses a Dredge Positioning System developed in-house to ensure the bucket is placed as carefully as possible.

The original seabed depth contours are surveyed and the data is pre-loaded into the operator console, including tide level compensation data.

The exact position of the hopper is determined by a GPS receiver out at the end of the crane boom, which is then fed back to the dredge operator. The exact depth of the hopper is measured with a water pressure gauge and also relayed back to the operator.

This data is all displayed in real time, which enables them to plot the entire dredging operation including the optimum pattern of repeated dredges in between vessel moves.

Making sure that these operations are as effective as possible necessitates a concerted effort to monitor even the low turbidity that these systems cause and their spread throughout the disturbed water column.

Yasuhiro Murota of Penta-Ocean doesn't believe that the conventional method of measuring turbidity by manually lowering a turbidimeter is sufficiently accurate in the necessarily disruptive dredging of contaminated sediment. As such, the company has developed a Real Time Environment Monitoring System.

This consists of several floating automated monitoring stations that lower sensors down into the water column to measure turbidity, flow direction and velocity along a given route. These platforms all constantly feed back data to the dredger to provide a clear picture of the sea and water quality conditions as they unfold and affect the dredging operation.

The full environmental dredging system won its operational spurs and proved its worth in 2003, when the Deshima sea lane outside of

Hiroshima port was successfully and safely dredged of 6,621m³ of contaminated sediments.

In this operation, the system managed a level 20cm tolerance and - perhaps more impressively - no turbidity beyond 20m from the dredger or very little within that too.

Building on success

The next big question is now that you've extracted all of this contaminated sediment, what do you do with it? TOA Corporation's research and development centre believes it has the solution, using a Soil Separator Management system.

This was developed to handle very large amounts of contaminated sediment - up to 3,000m³ an hour - picked up from barges and treated it to make a usable by-product.

It manages this by filtering the sediment with vibrating sieve screens and then adding up to 13% seawater to the sediment to turn it into a more easily managed slurry. This is then forced into a Soil Separator centrifuge, which spins the slurry up at speed to separate the silt from clay. Once separated, these two materials take on different paths, with the sand slurry moving onto a dehydration conveyor to dry it out and prepare it for use as building material.

The other path for the heavier, fine clay slurry runs off to a detour channel where a flocculant is added, before passing into a separating box that splits the water from flock clay as it settles out of the water. This is then dehydrated, solidified and baked to turn it into a viable building material.

In 2002 and 2003, Japan's Ministry of Land, Infrastructure and Transport made use of the system when it dredged the Kanmon waterway and used the resulting material to build up the embankment of the New Kitakyushu Airport under construction, rather than importing the huge amounts of high quality soils needed. **PH**

World Wide Performing

The RN Group operates world wide performing
“capital and maintenance dredging, land reclamation and
coast protection” with a highly professional team.





IMO forces tankers to toughen up

Single-skinned tankers were officially barred from trading on 5 April, when the International Maritime Organisation's (IMO) revised phase-out schedule for these vessels came into force.

The original phase-out date was set in 2001 following the Erika incident off the coast of Brittany in 1999. However, this was revised and brought forward to soothe the perceived safety fears surrounding single-skinned vessels after the 2002 sinking of the oil tanker *Prestige* off the coast of Galicia, by the 13G regulation of MARPOL Annex I.

According to IMO statistics in 2004 there were 173 single-hulled

VLCCs remaining in service of a total of 455 vessels worldwide, but tanker owners association Intertanko says that there are 169 ships to be taken out of service this year. However, 142 of these are smaller vessels able to carry less than 60,000dwt, leading an Intertanko spokesman to state that it wasn't expecting any serious changes or shortages to hit the market.

There is some justification for this as shipyard order books are groaning under the weight of tanker orders for 2005. These include 25 VLCCs and 24 Suezmax, while the Aframax and Panamax fleets will each grow by

one vessel a week.

Under the new regulations, 5 April marked the end of the line for the larger Category 1 vessels built on or before 5 April 1982, but predictably there is a small window of compliance for any vessels built after that date, which will be able to continue trading right up to their official build 'birthday' in 2005.

In addition, the IMO regulations report that "Category 2 vessels, which have protectively-located and segregated ballast tank requirements will be phased out according to their age up to 2010."

The new regulation is a substantial break from traditional

IMO form, because it imposes restriction on vessel usage by age, rather than maintenance states.

While the move towards protecting the environment from oil and chemical spills is to be applauded, a number of analysts have publically pointed out that there are still doubts as to whether double-hulled vessels are actually twice as safe as their thinner-skinned counterparts. As ever, a complete and regular maintenance regime is the best insurance against any future *Erika* or *Prestige* events.

For more information and details on the full phase-out programme, visit www.imo.org



Inter-agency group studies safer streamlined scrapping

Complex legal frameworks and overlapping jurisdiction fields complicate ship disposal and recycling, so the three main international organisations interested in the field have recently established a new joint working group.

The new group represents the interests of the International Maritime Organisation (IMO), the International Labour Organisation (ILO) and the Conference of Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

They got together primarily to work out a co-ordinated approach to scrapping and will present their report at the 53rd session of the IMO's Marine Environment Protection Committee in July. Whichever way you look at it, scrapping ships is a dirty business. By the time a vessel has lived out its useful life and there is no alternative to turning it into the proverbial razorblades, chances are that it is in a very bad state.

Worse still, a number of the ships currently lying around the

world's ship graveyards were built in an era before watertight environmental and build-quality requirements were in place governing all manner of nasty, toxic substances.

As such, the key points that the working group has decided on include developing a full reporting system of ships destined for recycling and the establishment of a single-list of potentially hazardous materials that they may have on board.

However, initial plans to develop a matrix overlay of all of the requirements, laws and guidelines of each organisation to enable them to eradicate any duplication, gaps or omissions in their activity turned out to be a much larger task than anticipated. Each organisation agreed to continue work on this before the second session meets again, which is currently slated for December 2005 or January 2006.

On a more positive note, the group did manage to agree that they would ensure that the issue of the abandonment of ships on land or in port – ship dumping – “would be adequately covered by an international legally

binding instrument, as deemed appropriate.”

The group also committed to easing the environmental impact, and health and safety concerns surrounding ship breaking. In an effort to get the warning message for all of these dangers out, the three organisations are now going to consider translating their guidelines into the working languages of the main ship scrapping states. They are also looking into setting up a user-friendly website to this effect, with hyperlinks to the formal sites of all three parent organisations.

Beyond this, they will set up open workshops and seminars that will include input and deputations from the three contributing organisations.

As always, funding is a difficult issue, but the working group has decided to push for further consideration of an International Ship Recycling Fund at the IMO. This would promote the safe and environmentally sound management of ship recycling activities.

For more information please visit www.ilo.org, www.imo.org and www.basel.int

IMO GloBallast goes forth

The Global Ballast Water Management Programme (GloBallast) striving to minimise the impact of invasive species carried in ships' ballast water on local economies entered a new phase in April.

This second phase builds on the successful five-year long, US\$10.2 million round of research that was wound up at the end of 2004.

Run out of the IMO's head office in London, GloBallast's first stage set up and managed trials in six sites across the world – Brazil, China, India, Iran, South Africa and Ukraine – providing a good solid range of environments and port-types.

The second phase follows a more open inclusive plan and will be known as GloBallast Partnerships. As the name suggests, the programme is looking to provide partnerships to help “particularly vulnerable countries and/or regions to enact legal and policy reforms,” according to the IMO.

This will enable the recipients to come into line with the International Convention for the Control and Management of Ships' Ballast Water and Sediments, as adopted by the IMO in February of last year. This is crucial for the future of the convention, which needs a quorum of 30 individual ratifying states before it can enter force.

Funded initially by US\$700,000 from the Global Environmental Facility, the Partnerships Programme has a tentative budget set at around US\$17 million and will be managed by the UN Development Programme. At least US\$10 million of this will be provided by ‘in-kind’ contributions, such as providing advisers and training courses.

This capacity-building programme is absolutely vital to protect against what the IMO calls one of the greatest threats to marine biodiversity and ecosystems. Without it, the IMO projects that the globalising economy and increasing need for shipping will help the transfer of harmful invasive species to increase three-fold.

For more information visit www.imo.org

ICHCA raises port safety and security concerns

The IAPH's Europe office faced up to the ICHCA cargo handling group's safety panel in mid-April 2005, and answered a number of complaints and concerns about ship reception facilities on behalf of its membership.

On behalf of the International Chamber of Shipping (ICS), the ICHCA reported that complaints are still being received from members about port officials, who are refusing to identify themselves when boarding ships. This puts the ships into an awkward position as regards compliance with the International Shipping and Port Facility Security (ISPS) code's mandated ship security plans.

The ICS points out that this can have knock-on effects and can cause problems in the next port of call, as ships have to report their security situation in the last ten ports of call.

This matter will be discussed further when the IMO's Maritime

Safety Committee meets next – from 11 to 20 May – on the basis of a correspondence group chaired by France. The submission will contain a request to IMO to endorse the view that everybody must identify themselves when boarding a vessel, and the IAPH will fully support this position.

The IAPH is also to lend its support to a request from the ICHCA that ships are only required to report into the port once.

Apparently ships' captains have complained that they are required to submit the same information to multiple organisations whenever they enter a port.

Though the IAPH has agreed to support this request, agreeing that a standardised point of contact would be ideal, the IAPH Europe office also noted that "as a result of differing information distribution arrangements at ports, a fully standardized procedure on an international basis would probably

be impractical."

Recently mandated by the IMO, AIS information has provoked divisive reactions from the world's port and shipping communities. In line with this, the ICHCA raised the contentious point of the public internet availability of the data exchanged between ship and shore.

The ICHCA is particularly concerned that this data contains sensitive information regarding the vessel's location and speed, making it easier for pirates or terrorists to locate and attack the choicest vulnerable vessels.

As a result of discussions between the shipping industry and the publisher of the website, the latter has agreed to put the sensitive data on a protected website that is only accessible to paying subscribers (who will also be subjected to a vetting process).

Nevertheless, the IAPH stated that "by putting this information on a password protected website,

the accessibility has been made more difficult although we feel it would not stop a determined individual or organization."

The ICHCA's final complaint was about problems vessels are experiencing in port with the required testing of lifeboats under the ISPS regulations. In response, the IAPH agreed to advise its members to issue reasonable requirements in this respect.

The IAPH further suggested that ships and ports try to jointly reach agreements, taking safety and security issues into account. "We feel that it should be possible for a ship and a port of call to work out a sensible approach," the IAPH's European office stated, "that takes account of security requirements at the port while also allowing the ship to comply with the legal requirements regarding the testing of life boats."

For more information visit www.ichcainternational.co.uk

CLIA bill of health for cruising

Holiday cruises are more popular out of North American ports than ever, according to the Cruise Lines International Association (CLIA).

Figures released in mid-March showed that nearly one million more people took cruises in 2004 than they had in the previous year. CLIA's membership of 19 major cruise lines and 16,500 travel agencies accounted for a shade under 8.9 million of passengers last year, an 11% increase on 2003.

To put CLIA's statistics into perspective, according to an announcement at the 20th US Seatrade Cruise Shipping Convention on 16 March, a record 10.5 million people signed up for cruises in 2004.

CLIA's president, Terry L Dale, predicts this trend to continue

growing this year, with just over 11 million passengers heading aboard. "Many of the positive trends we saw emerging in January are becoming firmly entrenched," he stated.

A total of 68 new vessels have come onto the books of CLIA's member shipping lines since 2000, but even so the cruise ships are sailing with a startling 104% occupancy rate. According to Dale, this state of affairs is likely to continue, as demand appears to be insatiable, particularly with cruises to Europe, where holidays pre-paid in US dollars offset the weakness of the currency against the Euro and Sterling.

This general growth and the very high occupancy levels on-board are promoting a healthy



Royal Caribbean's Sovereign of the Seas is sharing in the cruise boom

glow around the industry, which is optimistically building a host of new vessels. The CLIA membership lines alone are

planning to introduce 20 new ships up to 2008.

For more information visit www.cruising.org

PIANC pushes inland waterways

The International Navigation Association's (PIANC) Inland Navigation Commission has released a study on the Economic Aspects of Inland Waterways, promoting them as a viable transport alternative.

The report is based on the principle that national transport infrastructures play a key role in economic development and so it looks at the various evaluation methods for waterway, rail and road development projects.

It is generally accepted that economic development and prosperity relies on a well-developed transport system. After all, if you can't transport goods to market, how can you expect to sell them? However, transport infrastructure projects are generally extremely expensive and therefore unattractive, though they do have a long lifespan.

To ensure that transport infrastructure investment is as effective as possible, most countries and supra-national organisations carry out in-depth evaluation projects. But the standard of planning and evaluation systems — usually based on cost-benefit and multi-criteria analyses — varies greatly from country to country and between various transport modes.

In terms of development programmes, the overall economic cost-to-benefit ratio is generally regarded as the main means of evaluation for major transport programmes, but in many cases there are additional non-monetary factors that can affect the financial results.

The main focus of this report is obviously on inland waterways, but it also investigates the competing transport systems —



road and rail — to provide a comparative base.

As a result, PIANC's report reviews the overall determining parameters and evaluation

methods used, promoting inland waterways as a solid transport alternative.

The full report can be ordered from www.pianc-aipcn.org

ELAA fights for conference competition exemption

A report by the European Liner Affairs Association (ELAA) has been released to try and pre-empt European Commission (EC) plans to end liner-conferencing's block-exemption, which claims that the policy is anti-competitive.

Regulation 4056/86 of the EC was accepted into being nearly twenty years ago as a low-cost way for liner operators to achieve pricing for the industry's customers based on either marginal or average costs in what is, in reality, a high fixed-cost industry.

According to the ELAA, "the system was intended to provide greater stability in a market prone to serious instability." It is strange then that the EC wants to remove this protection, because nothing has changed since the liner

exemption's introduction. The market is just as prone to instability as it ever was.

Equally curiously, an EC report last year found that liner shipping provides "regular, reliable, high-quality scheduled services, with ample competition, no switching costs and no barriers to entry." Which would appear to be directly at odds with the recent claims that the liner industry is anti-competitive.

Furthermore, ELAA found that the likelihood of successful and sustained collusion between competitors is low and the system for information flow is unlikely to impede effective competition.

Alfons Guinier, secretary general of the European Community Shipowners Association argues

that "the co-operation and self-regulation between lines have constantly been adapted to changing circumstances with clear beneficial results."

Nevertheless, the EC is currently looking for consultants to examine what would happen if there was

no liner conference block-exemption. Countering this, ELAA proposes a range of exemptions for discussions, information-sharing, surcharges and ancillary charges. It also encourages transparency of market share and price index information





Give me shelter

Frans Van Zoelen and René Bos from the IAPH's Legal Protection Committee discuss the IAPH's position on places of refuge

The sinking of *Prestige* has brought the 'places of refuge' debate back into the spotlight

The subject of places of refuge for ships in distress has been increasingly forced back under the international spotlight recently and high profile incidents like the sinking of the tanker *Prestige*, made the subject something of a periodical hot topic.

In 2004, the Scandinavian Institute of Maritime Law at the University of Oslo produced a sizeable report on liability and compensation, with regard to places of refuge at the European Commission's request.

During the 18th Annual Oil Pollution Conference run by Lloyd's List in March 2005, places of refuge was again a much-discussed topic and many concerns were expressed.

Following this, places of refuge is once more on the agenda of the IMO Legal Committee whose 90th session was under way as *P&H* went to press.

The IAPH submitted a position paper to the IMO on this and participated in the debate. In short, IAPH is of the opinion that the current system is not conclusive and therefore unsatisfactory. As such, the Association therefore underlines

the necessity for a conclusive liability and compensation system and urges the IMO to develop a convention on places of refuge.

Work in progress

In December 2003, the IMO adopted a resolution on Guidelines on places of refuge for ships in need of assistance, during its 23rd session. At the same time, the IMO adopted a resolution on Guidelines on maritime assistance.

The former Guidelines offer an operational framework to respond effectively when ships experience difficulties, but they do not address the issue of liability and compensation for any damage resulting from a decision to grant or deny a ship a place of refuge. Therefore, the resolution requested that the Legal Committee "consider, as a matter of priority, the provision of financial security to cover coastal States' expenses and/or compensation issues, and take action as it may deem appropriate."

In turn, the IMO asked the Comité Maritime International (CMI) to study this, to give direction to the debate on these

complex subjects.

At its 38th conference in Vancouver, Canada during June 2004, the CMI working group discussed several topics around this theme. CMI then prepared a report with the conclusions of this discussion and presented them back to the 89th session of the IMO's Legal Committee in October 2004.

However, the issue proved more lengthy than initially assumed and places of refuge are once again on the agenda of the 90th session of the IMO's Legal Committee.

The IAPH has therefore taken this opportunity to submit a position paper on the views of the IAPH on current liability and compensation regimes in place of refuge situations.

IAPH submission

The IAPH noted CMI's report on places of refuge with great interest. The association participated intensively in the debate in Vancouver and compliments the CMI on its clarity.

Furthermore, the IAPH also made its own submission to the IMO Legal Committee's 84th session. In particular it argued that the decision-making process

concerning places of refuge has to be modelled with a balance of interests — including the welfare of seafarers, the ship and the marine environment — on a case-by-case basis and has to be laid down as a rule of international law.

Beyond this, the IAPH insisted that the IMO must provide a legal framework of immunity for those responding to ships in distress or offering them shelter, and more generally in the event of an accident, a liability that is incumbent on the ship rather than the port. In the current legal framework the acceptance or refusal of a ship in distress into a place of refuge could entail risks for the public and port authority, both in financial and liability terms.

The system has to ensure that a public and/or port authority taking the necessary measures will have a method to recover its losses and expenses. In addition, the public and/or port authority have to be protected from third party liability claims, following accommodation of a distressed vessel. In this respect, the coverage of economic losses is a point of real concern for the IAPH.

The IAPH also argued that

measures have to be created in order to safeguard those parties — mainly ports — which have to abide by the decision of a state to grant access to a ship in distress. It has come to the knowledge of IAPH that there are systems of national law that do not cover all of the damages and costs resulting from abiding by a state's decision to accept a ship.

Finally, the IAPH contended that a separate regime has to be created with regard to the damage caused by a ship in distress, for a place of refuge which cannot be compensated.

The CMI Perspective

Similarly, CMI states that there are several legal deficiencies regarding the legislation on places of refuge. In particular it singles out the fact that no single international convention identifies the rights and obligations of a state when it is faced with a request for a place of refuge, and also highlights several treaties dealing with the liabilities arising from pollution damage. The latter includes both the HNS Convention and the Bunkers Convention, neither of which are yet in force. Similarly, the proposed wreck removal convention has also not yet been adopted.

It is evident to the IAPH that

until both the HNS and Bunkers Conventions come into force, a discrepancy will remain with the way damage caused by hazardous materials carried on ships which are not oil tankers will be assessed and compensated, because of the scope of the Convention on Limitation of Liability Maritime Claims (LLMC) of 1976.

There is no regime of strict liability, nor is there any second layer of protection in the form of a compensation fund available. Moreover, in the absence of insurance requirements for all ships, there is no guarantee that the ship will have sufficient liability insurance and, even if it has, claimants may not have access to it if the insurer could use any of its defences.

Fair funding

The IAPH welcomes the proposal of the International Group of P&I Clubs, concerning provision of financial security by means of a letter of guarantee to authorities for vessels granted a place of refuge, but the Association still has some reservations. In the IAPH's general opinion, the total aggregate sum of US\$10 million is completely arbitrary, given the deductibility of several amounts that could otherwise be paid by the P&I Clubs.

Nevertheless, the IAPH notes that the entry into force of both the HNS and the Bunkers Conventions will represent a significant improvement in the existing liability and compensation regime. Specifically so, in view of the range and diversity of the damages, ships and cargoes that are covered.

However, the Bunkers Convention does not provide responder immunity and its liability limits are governed by the protection of the LLMC.

Nonetheless, there are types of damage, ships and cargoes that are not covered by a specific convention and that will therefore stay within the LLMC.

As such, the IAPH is concerned about the scope of the LLMC, which results in significantly lower protection and leaves damages and costs unresolved.

Under the LLMC, the exact amount of the liability varies according to the applicable right of limitation. This depends on the size of the ship, the version of the LLMC which applies in the state concerned, the type of claims that are at issue, and the extent to which specific reservations have been made.

In addition, claims will also have to compete for limited funds available. The absence of third

party insurance requirements on ships only increases the risks of ports not receiving full compensation. Likewise, there remains the risk that the ship may not even be insured at all.

Even if a ship were to be properly insured, claimants would not always have access to, or direct action against this insurance. Alternatively, the insurers could use their right to limit their liability.

This imposes substantial financial risks on a port that has to accommodate such ships in distress. In practice, those ships will often be abandoned after a place of refuge has been granted. On the other hand, the absence of sufficient compensation increases the possibility that claims will be directed against the port and/or the public authorities.

Way to go

The IAPH endorses CMI's conclusions and strongly supports the solution that either an international convention, or amendments to existing Conventions, or Guidelines, need to be prepared to cover the different topics in the report. Crucially, the IAPH believes that the simple draft of Guidelines is not satisfactory, as these Guidelines need to be mandatory.

Furthermore, the Association expresses grave concerns about the gaps in the current liability and compensation regimes. Only an all-embracing system where all damages and costs incurred in the course of a place of refuge situation are covered would allow public and/or port authorities, given the limited decision time, to focus on the key issue of refusing or granting access on technical and environmental grounds.

Once again, the IAPH congratulates the CMI on the transparent and accessible manner in which it has addressed this topic.

The Association hopes that solutions will be found to the place of refuge problems as suggested by CMI. As such, the IAPH will participate in any further discussions that will follow on this important issue. **PH**





London hosts IAPH regional meet

Members of the IAPH Europe and Africa region gathered in London between 9 and 11 March for the group's annual meeting and to carry on the IAPH's 50th Anniversary celebratory road trip.

Hosted by the Port of London Authority and held at the Marriott Hotel just across the River Thames from the Houses of Parliament and the Palace of Westminster, the meeting was right in the heart of the UK's capital.

The meeting attracted 75 members and a good number of their partners. As well as the network opportunity that is at the heart of all of the IAPH regional meetings, the symposium was built around a solid core of lectures from around the region's members providing a great opportunity to trade information on the key developments in their home areas.

Keynote speaker Stephen Green, group chief executive of banking giant HSBC, opened the conference phase on a sobering note, highlighting the changing economic environment as driven by the power houses of the Africa/Europe region's biggest neighbours, China and India. Though out of the immediate area of concern for the conference, he contended that what happens in these two countries will have huge repercussions for the rest of the world.

Every flexing of China's economic muscle has knock-on effects for countries across the

world, he warned, bringing challenges as well as market opportunities. "The economic growth of China is the most seismic event of globalisation and the balance of world influence is tipping towards the East," he asserted to the assembly.

The conference phase was split into four main blocks – firstly covering regional developments in Europe and Baltic, followed by the same treatment of Africa and the Mediterranean, then touching on security, and environmental perspectives affecting ports.

In the opening session, Neil Davidson from Drewry Shipping Consultants sketched out a changing consumer market, emerging shipping trends and warned of the impacts this will have on the world's ports.

"Prices of consumer electronics have fallen through the floor," he noted. "We are not consuming vastly more DVD players or wearing more ties, but they are coming from a different place. That is the key thing, it's not yet clear who the losers are."

Other topics included the push towards shortsea shipping, Riga's perspective on trade trends in ports and shipping in the Baltic and a briefing from Fotis Karamitos, head of the EU's Port Division on the future role of port authorities in the Motorways of the Seas programme. Karamitos believes this will get traffic off the roads and back onto water, making

ports and shipping an "integral part of door-to-door logistics."

The Africa and Mediterranean session included a thorough brief from Mireille Backo, the secretary general of the Port Management Association of West and Central African Ports, on the changing face of the west African port industry and the challenges that they are facing.

In particular, she highlighted the "political and social difficulties that the region is facing, with decreasing imports and increasing exports.

"Our main challenge" she continued, "is how to make our ports more efficient and competitive, able to support bigger vessels and streamline our intermodality."

Samson Luhigo, Director General of Tanzania Harbours Authority painted a similar picture for the eastern side of Africa. He lamented the expensive loan payments that his government has to meet, which in turn hamper the ability of ports to compete, with a crumbling logistics base.

The picture in Egypt — as painted by Rear Adm Shireen Hassan Mahmoud, head of the country's maritime transport sector — was much more rosy, as the Admiral described a booming maritime industry and ambitious plans to dredge the Suez canal to accommodate bigger vessels. Adm Mahmoud said that when the canal is deepened to 72ft, 99% of the world's fleet will be able to

cut the journey round the Cape.

With security and environmental issues being very much the flavours of the month for the maritime world, both areas were further covered during the discussions.

Renowned maritime analyst Mike Grey introduced the former, acknowledging that "security is just one dimension of many fields covered by port operators", but also warned that "reports abound of a worrying disparity in compliance requirements for the [International Shipping and Port Facility Security Code]."

There was no danger of weak or non-compliance at Rotterdam, however. Peter Mollema, director of strategy for port infrastructure and maritime affairs at the port, described in detail the command and control aspect of his port's drive to ISPS compliance and the very serious job of securing a port.

Representing the environmental section, David Whitehead, the director of British Ports Authority spelled out the legal controls – mainly on European ports – and the effects of various key pieces of legislation on port operations. Environmental consultant Jan Brook covered the European Water Framework Directive in much more detail and Leticia Greyling presented on a case study into ballast water management in South Africa. For more information on the latter, see her article in the ship emissions control feature on Pg 28) **PH**

Friends in high places

As expected, the IAPH Africa/Europe meeting attracted a great attendance from across the region, including a special VIP who turned up to help celebrate the Association's 50th anniversary in the middle of the conference.

All present agreed that one of the highlights was the IAPH Golden Jubilee celebration cocktail party at the prestigious Somerset House, attended by HRH Prince Andrew, the Duke of York as guest of honour. He circulated widely and talked to all of the attendees.

"I would like to congratulate the IAPH" he announced later "for its 50th birthday and wish the organisation many happy returns for its first half century, and also my best wishes for the one after that."

His Royal Highness' career in the Royal Navy has given him a close affinity with the sea and he is a long-term campaigner for increased recognition of the importance of the maritime environment.

"I have been keen to listen to the views of all the delegates here on the issues that they feel affect their ability to do business, and I have certainly agreed with many of those I have been able to speak with on a number of those important issues."

Nevertheless, he added that "it seems that there remains a large proportion of the world's population that does not understand just how much of the world's trade is carried by sea. Something is not quite right with this situation. Somebody somewhere has got to get the message across of the impact on the world's economic welfare, if it wasn't for the role of the maritime industry, its ports and their ability to move trade across the globe."

This is precisely the message that the IAPH is



Hosted by the London Port Authority, the IAPH meeting was held in the heart of the UK's capital

trying to push, and has produced booklets and CDs towards this aim (*see Bulletin Board*).

"I hope that this conference has given all of you the opportunity to discuss your concerns and examine potential collective solutions", the Duke of York concluded. "I congratulate the IAPH once again on your anniversary and wish you all future success." **PH**

IAPH legal database goes live online

Any IAPH member needing legal reference can now turn to the IAPH website, where the Association's new Legal Database on International Maritime Conventions Impacting Ports is now live in the members-only area.

The guiding principle behind the establishment of this website was the explosion in the proliferation of maritime laws and international conventions that have a direct impact on ports over the last few years.

Ease of use was foremost amongst the database's design criteria and, as such, it provides comprehensive access to 60 maritime conventions using simple hyperlinks.

Endlessly mutable, it will expand to cover new developments and annexes to existing conventions, and can be searched by 'theme' or the direct international organisations responsible for specific laws and conventions by title.

As the law is necessarily complex, the database also holds an index of legal terms, to help the lay researcher understand the implications of these laws and conventions. In particular, this index contains an explanatory note on general legal terms used throughout the database and another on the legal terms used in the treaty-making process.

In this way, members can research their

requirements within the framework of the IAPH. The database forms a new and 'added-value' aspect to the IAPH network and reflects the Association's continuing commitment to supporting its membership.

The database was compiled and produced by the IAPH Legal Protection Committee, based on a survey conducted in November 2001 (*see 'Shaping the database' box below*).

In response to this survey, the database has been constructed in three main parts. The first consists of a table, listing all of the international maritime conventions that affect ports, stored

in a simple, approachable format.

This data can then be browsed in two main ways by theme (including all of the points of interest noted in the 'Shaping the database' box) or by organisation (covering the IMO, UN, UNCTAD, UNICITRAL, ILO and Brussels Convention). In addition, it can also be downloaded as a PDF file or in a Microsoft Word format to be viewed in hard copy.

Please visit the IAPH website at www.iaphworldports.org

Note however, that the IAPH Legal Database is only available to IAPH members. **PH**

Shaping the database

The new IAPH legal database was formed in direct response to a questionnaire – known as the 'Legal Needs of IAPH Member Ports' – fielded by the IAPH's Legal Protection Committee. This aimed at identifying the legal topics considered to be the most important by IAPH members.

It was based on the five following criteria:

- frequency of problems
- difficulty of problems solving
- financial impact for ports
- interest in the IAPH official position, and
- implications of strategic issues.

The main results from this questionnaire highlighted concerns about:

- environmental protection
- maritime safety and security
- liability and compensation
- maritime commerce, and
- legal regime for port activities.

24th IAPH World Ports Conference & Exhibition

SHANGHAI INTERNATIONAL CONVENTION CENTER

CONFERENCE: MAY 21-27, 2005

TRADE SHOW: MAY 23-25, 2005



Chairmen or CEOs of the Following Organizations will share their views during the Conference

International Organizations

International Association of Ports & Harbors
World Customs Organization
The World Bank
EU Commission
European Sea-Port Organization
International Association of Dredging Companies

Government Institutions

Ministry of Communications, PRC
Shanghai Municipal People's Government
Development & Reform Commission, PRC
Shanghai Deep-water Port Construction Headquarters
Malaysian Marine Department



Global Port Operators

Shanghai International Port (Group) Co. Ltd.
HPH
PSA Corp.
The Port of Rotterdam
National Ports Authority of South Africa
China Merchants Holdings International Co., Ltd.
Jawaharlal Nehru Port Trust
Direccion General de Puertos

Port Authority of Douala
Port of Houston
Port of Seattle
Sydney Ports Corp.
Naha Port Authority

Shipping Lines

Maersk Sealand Lines
NYK
COSCO

Shippers

GM
SIEMENS

Logistics

BNSF Railway Co.
Dubai Jebel Ali Free Zone
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Others

Erasmus University
Yangtze Estuary Waterway
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REGISTRATION FORM

Please fax back to +86- 21- 63230184

DELEGATE DETAILS

Title Mr Mrs Ms

Last Name _____ First Name _____

Position _____ Company _____

Address _____

Country _____ Zip Code _____

Phone number _____ Fax number _____

Email address _____

Passport Number _____

ACCOMPANYING PERSON DETAILS

Spouses/ guests who attend the conference working sessions, please register as a delegate

Title Mr Mrs Ms

Last Name _____ First Name _____

Phone number _____ Fax number _____

Email address _____

Passport Number _____

REGISTRATION FEES FOR DELEGATES / ACCOMPANYING PERSON

Please tick appropriate boxes

Please note: one spouse included in the delegate fees.

	Early Bird before 1 March 2005	After 1 March 2005
IAPH Member Registration	<input type="checkbox"/> US\$2050	<input type="checkbox"/> US\$2250
NON-IAPH Member Registration	<input type="checkbox"/> US\$2400	<input type="checkbox"/> US\$2600
Additional Accompanying Person	<input type="checkbox"/> US\$650	<input type="checkbox"/> US\$850

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I hereby authorize you to debit my credit card account for the amount as stipulated above

(Please note that all credit cards will be charged in US Dollars).

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Bank name: The Hongkong and Shanghai Banking Corporation Limited, Shanghai Branch

Swift Code: HSBCNSH



CONTACT INFORMATION

For enquiries about working session, visa, sponsorship, please contact:
Shanghai International Port (Group) Co., Ltd.
18 Yangshupu Road 200082
Shanghai China
Tel: (8621) 52341226, 52340646
Fax: (8621) 52340649
Email: port@sh-wes.com

For enquiries about registration, social events,
accompanying person's programme, tour, hotel and other general information,
please contact:

Conference Secretariat
Jin Jiang International (Group) Shanghai Jin Jiang Tours Ltd.
191 Chang Le Road 200020
Shanghai, China
Tel: (8621) 65470891, 63290660
Fax: (8621) 63230184
Email: iaph@portshanghai.com.cn

For enquiries about exhibition, please contact:
Worldwide Exhibitions Service Co., Ltd.
Room 801 Block B Nan Zheng Building
580 Nanjing Road (W) 200041
Tel: (8621) 54654677
Fax: (8621) 64720408, 64153003
Email: info@iaph2005shanghai.org

IAPH media to raise port profiles

In general, the world's transport infrastructure runs so smoothly that unless you work directly with shipping or the wider transport industry, it is all too easy to take it for granted.

With this in mind, the IAPH has launched a new multi-media campaign to raise the profile of ports and get people thinking about how central they are to everyday existence.

The IAPH's 50th Anniversary proved the ideal excuse to commission a film about the organisation's work towards 'Uniting the World's Ports'. This is available on CD-ROM.

The IAPH has also printed a booklet entitled 'Ports in Your Life' which sets out the importance of ports and shipping for every single product that we come into

contact with in our day-to-day lives, from out-of-season fruits to mobile phones.

Written in an approachable style and full of headline-grabbing facts and figures, the booklet can be equally well employed in schools as libraries and conferences.

Booklets and CDs have so far been handed out at the IAPH 50th Anniversary ceremonies in Tokyo, Tehran and London. The IAPH secretariat will distribute them at the World Ports symposium in Shanghai, so if you're attending make sure you pick yours up there. They will also be sent out to non-participants after the conference.

Shipping is one of those aspects of modern life that many people only recognise if it fails.



When Sony launched its new slimline Playstation 2 games console in the run-up to Christmas 2004, it was hotly tipped to sit proudly at the top of many children's wish lists. However there was a complete shortage in the UK that saw the mass media round on the shipping industry – blamed as

the source of the shortage – and led many parents to the inflated prices of internet shops, which inevitably pumped up their prices to milk the demand.

With this new publication and CD-ROM, the IAPH is hopefully going some way to redress the balance and spread the good word of it's constituent members.

Membership Notes

The IAPH is pleased to welcome five new members into the fold.

Regular Members

Chambre de Commerce et d'Industrie de la Reunion-Ports
 Address: Rue de Evariste de Parny-BP18, 97821 Le Port Cedex, France
 Telephone: +262-429-010
 Fax: +262-424-790
 E-mail: pr.dir@reunion.cci.fr
 Website: www.reunion.port.fr
 Representative: Ham-Chou-Cong Gilles, Ports Managing Director

Port Bodrum Yalikavak
 Address: HQ, Cemalshahir sokak no 26/28, Mecidiyekoy 34396, Istanbul, Turkey
 Telephone: +90-212-274-1149
 Fax: +90-212-275-5523
 E-mail: cefikamhi@portbodrum.com
 Website: www.portbodrum.com
 Representative: Cefi Jozef Kamhi, Chairman

Associate Members

Perse International Forwarding Company
 Address: 165 Motahari Ave. Tehran 15766, Iran P.O. Box 15875/1617
 Telephone: +98-21-874-4916
 Fax: +98-21-874-4924
 E-mail: Parviz.Golabi@perse-ir.com
 Representative: Parviz Golabi, Managing Director

Korea Logistics Network Corporation (KL-Net)
 Address: Kunwoo Bldg. 7th FL. 680-1, Yoksam-Dong, Kangnam-Ku, Seoul 135-080, Korea
 Telephone: +82-2-538-0238
 Fax: +82-2-538-3626
 E-mail: hahn@klnet.co.kr
 Website: www.klnet.co.kr
 Representative: Jung Chun Park, President

CICIMAR-IPN
 Address: Av. Instituto Politenico Nacional s/n, La Paz, CP23096, Baja, California Sur, Mexico
 Telephone: +55-16121225344
 Fax: +55-16121225322
 E-mail: rcervan@cicimar.ipn.mx
 Website: www.cicimar.ipn.mx
 Representative: Dr. Rafael Cervantes Duarte

Dates for your diary

A selection of forthcoming maritime courses and conferences

May

9-10: Waterfront Conference 2005, Dubai, United Arab Emirates

www.waterfront-dubai.com

11-13: INMEX China, Guangzhou, China

www.inmexchina.com

19-21: WCO – Securing Trade through Technology, Baku, Azerbaijan

www.wce.az

23-3 June: APEC – Tasks and responsibilities of Forwarders, Agencies and Shipping Lines, Antwerp, Belgium

www.portofatwerp.be/apec/NL_html/EN_seminarie.htm

23-3 June: IPER Port competition and Strategic Management, Le Havre, France

www.ma-cci.com/iper/

24-26: Transport & Logistics Russia, Moscow, Russia

www.tlrexpo.com

29-31: Gulf Conference on Port State Control 2005, Doha, Qatar

June

8-10: AAPA – Maritime Economic Development, Galveston, USA

www.aapa-ports.org/programs/05medpr.htm

9-10: BPO General Assembly and Conference, Copenhagen, Denmark

www.bpoports.com

13-24: APEC – Container Terminal Management, Antwerp, Belgium

www.portofatwerp.be/apec/NL_html/EN_seminarie.htm

14-16: Sea Work, Port of Southampton, UK

www.seawork.com

14-16: TOC Europe, Antwerp, Belgium

www.toc-events.com

21-22: Accelerated Low Water Corrosion 2005, Liverpool, UK

www.millenniumconferences.com

21-24: African Ports and Harbours Conference 2005, Midrand, South Africa

www.terrapin.com/2005/portsza/confprog.stm

22-23: Air & Port Security Expo Europe, Brussels, Belgium

www.aps-expo.com

28-29: Indian Ocean Ports, Logistics & Shipping, Mauritius

www.transportevents.com

29-30: AAPA – Port Directors Seminar, Denver, USA

www.aapa-ports.org/programs/05prtdirectors.htm

P&H reborn to applause

The relaunch issue of the new-look *P&H* magazine has been landing on desks and doormats across the world and has met with unanimous approval.

The March issue of *P&H* ran off the presses just in time for its first public airing at the Africa/Europe regional meeting in March and a straw poll of the members there showed an overwhelmingly positive reaction to the redesign.

One senior member at the Anniversary Party at Somerset House actually announced that “it is so much better than the old journal that I didn’t recognise it as the same animal!”

The following is just a sample of the letters the IAPH secretariat has received in response to Secretary General Inoue’s request for feedback.

Attractive

Dear Dr Inoue,

My compliments on the relaunch of the *P&H* magazine. It looks really great and is very attractive to read! I’m looking forward seeing everybody again in Shanghai during the World Port Conference in May. Kind regards

Arnold Bakelaar
Business development
manager Logistics Port of
Rotterdam

Glossy

Dear Secretary General Inoue,

What a delight it was to receive the latest issue of the new *Ports and Harbors* journal and find that it had been transformed into a glossy, very well done and very informative magazine. I like it!

Congratulations on this transformation.

While I see one or two areas where a little more clarity might be helpful, overall, I think this is a fitting new medium to begin the next 50 years of IAPH discussions and opinion exchanges.

My best wishes to you, President Struijs, and of course the new editorial team. Fond regards,

Lillian Borrone
Chairperson of ENO
Transportation Foundation
and member of the US
Commission on Ocean Policy

Clearly better

Dear Sir,

We have recently received your new edition of *Ports and Harbors* and are pleased to forward you our feedback on it.

Regarding the form of this new edition, it appears to be clearer, lighter, and more colourful than the former version, which arouses curiosity and the desire to read the articles in more detail.

The visual aspect is greatly improved and the articles are very comprehensive with references to wide variety of subjects.

There is also some very interesting flash information reminding, for instance, of major forthcoming events.

In conclusion, we can confirm that we greatly prefer this new version! Best regards

Bardin Elodie
Port of Marseille

Feedback

Hopefully, you too will have noticed that this second issue of the magazine has subtly evolved once again, in response to comments from readers and it will continue to do so to reflect the needs and requirements of the IAPH membership.

Any feedback on the magazine is always gratefully received. So if you have any comments, both good and bad please contact the editor, Nick Brown at nick.brown@lrfairplay.com and help shape your magazine’s future.

Membership dues for 2005

	SDR	¥	\$	€	£
REGULAR					
1 unit	1,070	171,699	1,630	1,236	855
2 units	2,140	343,399	3,261	2,472	1,711
3 units	3,210	515,099	4,892	3,709	2,567
4 units	4,280	686,798	6,523	4,945	3,422
5 units	5,350	858,498	8,154	6,181	4,278
6 units	6,420	1,030,198	9,785	7,418	5,134
7 units	7,490	1,201,897	11,416	8,654	5,989
8 units	8,560	1,373,597	13,047	9,890	6,845
ASSOCIATE					
A-X-1	900	144,420	1,371	1,039	719
A-X-2	610	97,884	929	704	487
A-X-3	310	49,744	472	358	247
B	900	144,420	1,371	1,039	719
C	900	144,420	1,371	1,039	719
D	160	25,674	243	184	127
E	140	22,465	213	161	111
TEMPORARY					
	600	96,280	914	693	479

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VP visits the secretariat



IAPH First Vice President, H Thomas Kornegay, flew over from Houston to visit the Tokyo secretariat at the end of March.

There he met with secretary general Dr Satoshi Inoue and his deputy, Tatsuki Hioka to discuss a number of areas. In particular, they discussed reform of the IAPH's Technical Committees and campaigns to increase IAPH

membership. The party also discussed ways to improve the IAPH Website (www.iaphworldports.org) and public relations. Beyond this, Dr Inoue, Hioka and Kornegay debated the function of the IAPH's Europe office and, in a more immediate sense, the Shanghai conference programme from the 24th World Ports congress set for 21 May.

Dates for your diary

A selection of forthcoming maritime courses and conferences

July

7-9: Centre for Maritime Research's People and the Sea III, Amsterdam, Netherlands

http://www.marecentre.nl/people_and_the_sea_3/

11-13: AAPA – Port Administration and Legal Issues Seminar, Seattle, USA

www.aapa-ports.org/programs/05admin_legal.htm

13-16: International Exhibition on Logistics & Port Equipment, Dalian, China

www.coastal.com.hk

27-29: AAPA – Port Security and Safety Seminar, East Rutherford, USA

www.aapa-ports.org/programs/05security_safety.htm

August

29-1 September: The 2nd International Seminar on Remediation and Handling of Contaminated Sediments, Delft, Holland

www.unesco-ihe.org

September

5-7: The International Conference on Port-Maritime Development and Innovation, organized by Singapore Port Authority and Port of Rotterdam, Holland

www.portofrotterdam.com

20-21: Royal Institution of Naval Architects' Marine Heavy Transport & Lift Conference, London, UK

www.rina.org.uk

21-22: The 3rd Asean Ports and Shipping Exhibition & Conference, JW Marriott Surabaya Hotel, Indonesia

www.transportevents.com

26-29: The 8th Russian Shipping, Ports & Offshore Energy Exhibition, St. Petersburg, Russia

www.setcorp.ru/exb

27-29: International Construction and Utility Equipment Exposition, Louisville, Kentucky, USA

www.icuee.com

October

5-8: INMEX International Maritime Exposition, Mumbai, India

www.inmexindia.com

23-26: Trimble Dimensions 2005 User Conference, Las Vegas, USA

www.trimbleevents.com



“Communication is the lifeblood of an organization”

Chairman of the IAPH Committee on Communication and Networking, Jose Perrot, explains why the role of IAPH communication and what improvements must be made

“ Too many people still struggle to conceive that the bubble in which they live is not actually the centre of the world ”

It seems obvious to say that good communication is the lifeblood of an international association — simple proof of this is the existence of the P&H journal for so many years.

But human needs for information have accelerated at an exponential rate over the last 50 years. Not so long ago, who could have imagined a world with internet and e-mail? Now who could imagine it without them?

The IAPH's Committee on Communication & Networking (CC&N) was created at Kuala-Lumpur in 1999, with the broad but clear objective of improving communication both within the organisation and externally.

Our remit was principally to provide information on the world's ports and to create an easier way for members to exchange information. Our first task led to a revamp of the Association's existing website in 2000.

A fortnightly Online Newsletter followed, to keep members informed on the Association's activities and, last but not least, the hardcopy journal now in your hands benefited from a recent redesign and greater scope.

On the surface, these actions appear to be fairly minor if you consider the amount of time it took us to achieve them. But in my view, there are two explanations for this slow pace of process.

Firstly, the great range of cultures and the level of education across the membership is a strength of the association, but it does not facilitate easy and widespread comprehension.

Secondly, communication was – and still is - considered to be a relatively minor, reactionary issue. Probably because too many people still struggle to conceive that the bubble in which they live is not actually the centre of the world.

Happily, this group of people seems to be diminishing. But even so, I regret that even the IAPH's existing suite of communications tools aren't fully used by enough of the membership to exchange their views and

share important information.

However, a combination of the explosion in user-friendly information technology and the enthusiasm of the younger generation is pushing us to maintain a steady pressure to improve communications across the IAPH.

Communication is like any issue in port life – it is never complete and constantly needs improvement to stay current.

As such, a lot of work remains to be done. The website that we were so proud of back in 2000 is already looking very old and a refurbishment is necessary. Likewise, the Online Newsletter that is so useful for the membership should be reconsidered, to complement the new journal and fall into harmony with it.

We have to be imaginative for these developments and must not be shy to change what exists. Nothing is built forever.

Other very important work should be started in the community, as good communication is absolutely vital for the association's continued life.

Many IAPH members need to improve their own communications and the CC&N should share experiences and provide tools to help.

Communication is not a panacea to solve all of our problems, but at every level of the Association, people should not marginalise its importance. Communication needs expertise, steady efforts and confidence.

We should not neglect it. After all it's the lifeblood of the IAPH. **RH**



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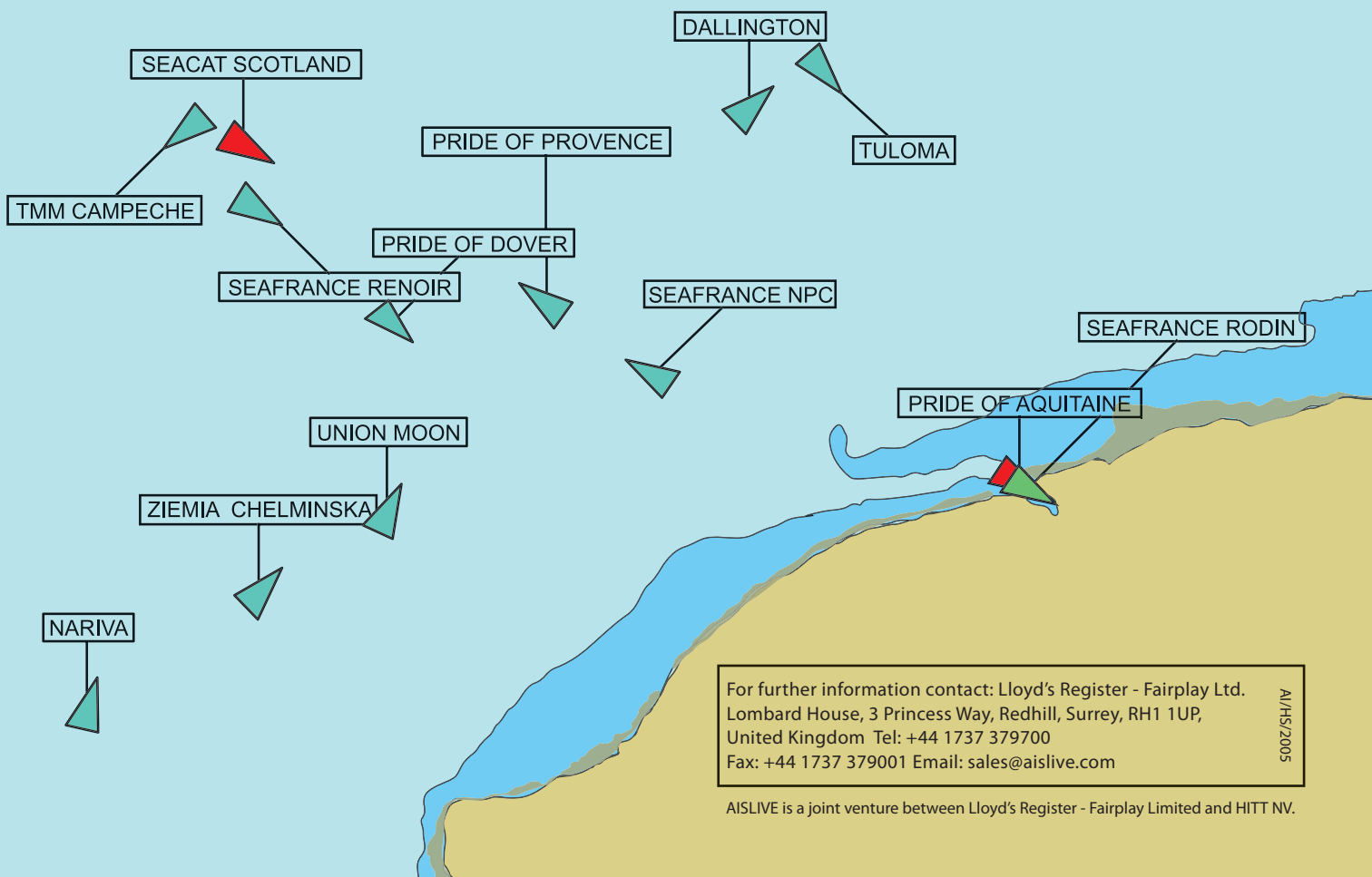
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